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MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY.

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OF

PSYCHOLOGY AND PHILOSOPHY.

EDITED BY

PROFESSOR G. F. STOUT,

WITH THE CO-OPERATION OF DR. E. CAIRD, PROFESSOR WARD, PROFESSOR PRINGLE-PATTISON, PROFESSOR E. B. TITCHENER, AND OTHER MEMBERS OF AN ADVISORY COMMITTEE.

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MIND

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OF

PSYCHOLOGY AND PHILOSOPHY

I.—THE DEFINITION OF WILL.

By F. H. Bradley.

No. III.

In some preceding articles I have defined will as 'the self-realisation of an idea with which the self is identified,' and I have endeavoured to explain and to justify this account. I have hitherto assumed the fact of what is called 'ideo-motor action,' and I have still to show that the assumption is warranted. But before I proceed to this last part of my subject, I must attempt to deal with several remaining difficulties.

The first of these is the question as to a plurality of volitional types.[1] There is a variety, it has been urged, of unique typical volitions, and each of these cases in the end is said to be irreducible and ultimate. Will may be negative, or imperative, or hypothetical, or disjunctive; and such types, it is added, will not conform to the general account which we have given. Our best reply to this objection will be to exhibit briefly the true nature of these different types. We shall in this way reach the conclusion that in every case our definition is confirmed. Certainly these types are irreducible in the sense that, before they were experienced, you could not in advance have anticipated their character. But everywhere, so far as they are volitions, they consist in the self-

[1] Mr. Shand, in Mind, N.S., No. 23, has written a very instructive article on this subject.

realisation of an idea, and the main question is as to the exact nature of the idea in each case. The types of will differ in short because in each type I will to do something different. The difference in other words lies in the diversity of the various ends, and this diversity will in each case be found to consist in the varying content of the idea which realises itself.

(*a*) We may begin with a short account of Imperative volition. In a true imperative I will the production of a certain act by another, not simply but in and through the manifestation of this my will to the other. In a true imperative the other's act must not come merely because I have willed it. It must come because I have also shown this my volition to the other, and, if the latter element disappears, there is no genuine order.[1] Since however this element has a constant tendency to be obscured or to vanish, it is often difficult in practice to decide if an imperative really is present. I will go on to illustrate this statement by several examples.

If, in walking with another man, I see him about to tread on some small living creature, I may will at once the prevention of this result. And I may execute my will in a number of ways. I may pull or push the person, or I may point to the object, or I may cry out 'There is something there,' or 'look,' or 'stop'. Now in any of these cases an imperative may be present or absent. If the manifestation of my will is included as a means in the idea of my end, we have in each of these cases a genuine imperative, and otherwise we have in no case an imperative volition. This is the principle, and all the rest is a question of fact to be decided in each case by a special observation. We may illustrate this again by what happens among some of the lower animals, where the mother is engaged in teaching her young. The tap, the push or the pull, the call or the warning sound, or the action set as an example, cannot in most cases, I presume, be regarded as orders.[2] They are not, in the proper sense, orders where they are done merely to produce the action of the other; for the idea of showing what is required seems essential to an imperative proper.

[1] I have of course always rejected the doctrine that a command must imply a threat. This fiction is as contrary to sound psychology as it is to plain fact.

[2] Whether the lower animals can use imperatives in the strict sense I do not here discuss. It is certain that they can behave in an imperative manner, and that this may be some evidence of their use of ideas I have long ago pointed out (*Principles of Logic*, p. 33).

The instance of the sudden and instinctive imperative, adduced by Mr. Shand (p. 317), does not present us, I think, with any special difficulty. If we are to decide whether an instinctive act is in any case a volition, we have to inquire first if it is the result of a foregoing idea. And in the second place, if that idea is found and the action therefore is will, we have next to ask what precisely is contained in the idea. And, according to the answer which we give to this question, we shall have to pronounce that a genuine imperative is present or absent. If I suddenly rise and ring the bell on the appearance of some danger or some want, such an "instinctive imperative" (p. 317) may perhaps be my willed order to a servant. But the act very probably is a volition which falls far short of this, and is no more an imperative than would be, for example, a movement to the door. And the act may possibly not even be the result of any volition at all. The whole question here is as to the presence and as to the nature of the idea, and, viewed in this way, the difficulty is reduced to a mere question about the particular fact.

In an ordinary imperative I will the real production of the act by the other, but it may be doubted if this feature belongs to the essence. The imperative consists merely, it may be said, in a willed manifestation on my part, and what lies beneath this appearance is not essential. But this is a subordinate point which we are not concerned to discuss, and, however it is decided, our main doctrine remains unaffected. And I do not think that we need dwell further here on the subject of imperative volition.[1]

(*b*) I must deal very rapidly with the alleged Hypothetical and Disjunctive types of will (Mr. Shand, *loc. cit.*, pp. 296-300). I cannot admit the existence of a conditional or an imaginary volition. We have to do in such cases, I should say, with an intention or a mere resolve, and how far this is will we have discussed in a previous article (MIND, N.S., No. 44). So far as the idea really is taken as conditional or as imaginary, it is so far not willed; but it may at the same time be willed in another character. And for an explanation of this I must refer the reader to our former discussion. The alleged 'dis-

[1] The reader should recall in this connexion that in one sense my will is limited to my inner self, and in another sense it extends into the outer world. See MIND, N.S., No. 44. We may in passing notice how the use of an internal imperative to myself is possible only where I have two selves which are taken as alien to each other. To make the whole of morality coexistent with the actual use of an imperative is therefore a most serious exaggeration.

junctive will' presents us with greater difficulties, but they are difficulties which do not seem to affect our account of volition. A disjunctive will, so far as it exists, must consist in the willing of a disjunctive idea, and the main question is about the real meaning of that idea. The question is difficult, and it is not possible to enter into it here, but I will very briefly set down what to my mind seems true. In determining (to use an instance given by Mr. Shand) to go to Paris by way of Calais or Boulogne, my state of mind is a compound of actual will and of mere resolve. I will unconditionally to go to Paris, and to go by a way which falls inside the space which is covered by both routes, a way which neither falls outside of them nor again falls within both at once. And so much as this I take to be unconditional and to be actually willed. But, to complete the disjunction of 'Either-or,' a further meaning is required, and this meaning cannot be reduced to anything which is called categorical. It remains conditional, and it cannot therefore be actually willed, but, at least in its proper sense, it is but the object of a mere intention or resolve. In my opinion therefore a disjunctive will is not fully disjunctive, or on the other hand the object is not in the full sense willed throughout. But, if such a will exists, it is the self-realisation of a disjunctive idea, and it falls under our general definition of will.[1]

(*c*) Negative volition must be discussed at greater length. The whole subject of negative states and of negative functions in psychology has, so far as I know, been treated unsatisfactorily. We had to enter this field in our inquiry into mental conflict, and with regard to some points I must refer the reader to that article (MIND, N.S., No. 43). But I should like to reprint here a passage from a paper published many years ago.[2] The doctrine contained in it has not, I believe, so far been noticed, but I must hope that in its present context it may have better fortune.

"I will now glance briefly at a point far too negligently handled. What is the nature of *aversion?* First the object of aversion, like the object of desire, is always an idea. We may indeed *seem* to desire the sensations that we have, but our object is really their continuance or their increase, and these are ideas. And so it is with aversion. The mere

[1] The nature of Choice has been discussed in the preceding article.

[2] MIND, O.S., No. 49, pp. 21-22. In this passage more stress should have been laid on avoidance and removal, as well as on destruction, as a form of negation. And again it might perhaps have been made clearer that I do not deny the existence of negative desire, but only of desire which is barely negative.

incoming of the painful is not aversion, nor is even the fear of it, if fear is confined to mere contraction or again to aimless shrinking back. To me aversion seems positive, what we call 'active dislike'. It implies a desire for negation, for avoidance or destruction. And hence its object, to speak strictly, cannot be reality, since it implies negation, and that is an idea. But desire for negation is still not aversion, until painfulness is added. The object to be negated must be felt to be painful and may also be so thought of. Aversion then is the desire for the negation of something painful. It is not a negative kind of desire over against a positive kind, and I myself could attach no meaning to a negative desire. Aversion is positive, but its true object is the negation of that which is commonly called its object—a confusion which has arisen from taking dislike to be mere negative liking. Aversion has a positive character, or it would not be desire; but its positive side is variable. There may be a definite position whose maintenance we want, as when we are averse to the injury of something we love; or again, the positive may be left blank—something, anything is what we want if it will serve to rid us of the painful. But again we may positively desire the act of destruction, with the agencies of its process, and so depend for the pleasures of life on our aversions. I hope this brief sketch may throw light on an obscure corner of our subject, and I will, in passing, advert to another mistake. Desire and aversion have been taken to be aspects of desire, since that is tension,[1] and (we may add) is to that extent painful. This is mere confusion, for all aversion has an ideal object. Now the (painful) tension of desire is not an object at all. It may be made one, and so may give rise to an aversion. But this will clearly not be an aspect of the original desire, but will be a new desire supervening."

What is negative will? It is a will to remove, to avoid or to destroy. The idea which realises itself in negative will is the idea of such a result. And negative will has a character of its own which in one sense is irreducible and unique, but on the other hand most emphatically it is not co-ordinate with positive volition. It is subordinate, and is a specification of the main positive type. The idea which it realises is never simple, but always implies, and always must imply, a positive basis and aspect. Thus the process of destruction or avoidance has an affirmative side, and without such an aspect of positive assertion all negation is meaningless. I

[1] Volkmann, § 140; Lipps, p. 604.

will explain this doctrine by a defence of it against some objections.

"Your doctrine," I shall first be told, "is contrary to fact. It would imply that with the negation of a particular A we have always a positive idea B, an idea which itself is particular and is co-ordinate with A. In other words there would be no denying except on the basis of an explicit alternative between particulars. And any assumption of this kind would be contrary to fact." But no such assumption, I reply, is involved in our doctrine. For the positive side of destruction or escape may remain unspecified and general, and certainly need not take the shape of a co-ordinate particular. In negative will, we may say, the affirmative is usually not specified. And to argue, 'Either no idea at all or an idea that is particular,' would surely everywhere, and not only here, conduct us to ruin. On the contrary I in fact may deny this or that without the actual assertion of any particular opposite. On the one hand that which is to be removed must be specified always; but the positive aspect of the removal, although necessary, may be utterly vague. The thing in short is understood to be done somehow, but the positive 'how' is left blank.[1]

We may pass from this to an objection of a different kind. "We can have negative will," it may be said, "where no idea at all is present; and this happens where we reject an offered suggestion and again where we disapprove." But I find in these cases no special difficulty, except in discovering the precise fact which is offered. If on its appearance a suggestion is banished either because somehow it is incompatible, or again because it is incompatible with some known mental group, it seems absurd to offer such a fact as a case of volition. If the exclusion is simple we have surely so far no semblance of will.[2] On the other hand if the suggestion,

[1] It is in my opinion a mistake to hold that every positive term without exception must have a co-ordinate negative, and in the end this mistake would have a ruinous result. As to negative will Mr. Shand (pp. 292, foll.) appears to me to assume without inquiry that the alternative, 'Either a particular positive idea or none,' is a sound one. He does not state whether he everywhere rejects unspecified ideas, and he does not explain how we are able to do without them, and how, for instance, we are to understand, say, the idea of an absence. I cannot agree with Mr. Shand that the psychology of negation has been injured by the transference from logic of ideas which there are true, but are inapplicable in psychology. I should say on the contrary that it is neglect of logic and mistakes in logic which have here injured psychology.

[2] There is here, we may say, no experience of agency proper, though there may be perhaps in a lower sense an experience of activity. See MIND, N.S., No. 46.

not being banished at once, is recognised as incompatible with a certain principle, and if the idea of the suggestion's banishment is excited and qualifies the principle—then I agree that the ensuing result may be a negative volition. But the nature of this volition now completely agrees with our definition of will. And the further instance of disapproval will certainly not shake us. For on the one side a disapproval is not in itself a volition, and on the other side it in no case is present without an idea. I will venture first to call attention to this latter point. The mere fact of a suggestion being in painful conflict with something either unspecified or again definite, even if this conflict results in the suggestion's banishment, does not by itself constitute a genuine disapproval. For, in order to disapprove, you must judge and must not simply eject, and you cannot judge unless you qualify your object by an idea. There must be a principle or standard, however vague, with which the self feels itself one, and that of which you disapprove must be qualified by the idea of discrepancy with this standard.[1] Thus a simple inhibition or rejection may be a higher thing morally than the most explicit disapproval, but, considered psychically, it will stand always at a lower level. But in any case, to return to this, a disapproval is in itself no volition. I may have the idea of a principle in myself and its rejection of something which is offered, and I may feel myself one with this whole idea and may judge accordingly and so disapprove. But unless I have the idea of a change in immediate existence, and unless that idea carries itself out into the facts, however much I have disapproved I have not actually willed.

An alleged negative volition, we have seen, is either not genuine will, and, when scrutinised, at once ceases to appear in that character, or else, if real, it does but specify our general account. It is a type which falls under and which confirms our definition of will. And we need, I think, consider no further these alleged types of independent volition. We have found that in every case, so far as it is a case of real will, we have an idea which carries itself out into fact. And the inability to verify the presence of this idea has, we saw, been due mainly to a failure to apprehend it in its proper character.

I will add some further remarks on aversion in its relation

[1] We saw in MIND, N.S., No. 41, p. 25, that for this reason your disapproval may serve to retain the suggestion.

to positive desire. The extract given above contains, I believe, the main truth on this subject, but I will endeavour in certain points to confirm and to illustrate its doctrine. Aversion and positive desire certainly are not co-ordinate, any more than are denial and assertion in logic. And it is not difficult to show how the mistaken view about aversion has arisen; but I will first endeavour to remove some misunderstandings.

"All desire," it may be said, "is and must be for change, and therefore all desire is negative; and on one side it must therefore consist in aversion." But the premiss from which this conclusion seems to follow is ambiguous. Desire is certainly for something which is not present, and it is a desire therefore for something else, and this naturally implies an alteration, and so in some respect a negation, of that which is. But in desire this negation is incidental, or at the very most is subordinate, while in aversion it constitutes the main and principal end. And 'change,' we must remember, is a more or less equivocal phrase. A thing is changed by a subtraction which removes its positive character, but it is changed also by the mere addition to it of something positive; for the thing so loses the character which it had before, while it was not yet increased. If, for instance, I possess two sixpences, my condition is changed if you take away one, and my condition also is changed if on the other hand you give me a third. And if, having already two sixpences, I desire a sixpence, my desire implies incidentally the negation of the first two as two only. But you can hardly take this negation to be in all cases an actual constituent of my positive desire, and, even where it is present, you can hardly make it co-ordinate with my positive end. For I may have desired the third sixpence without any thought of or any reference to the first two, and, even if I desire to add to these, I obviously do not desire to remove them. Their change, so far as it is negative, cannot in short be regarded as my main object. It is an incidental result which is either not present in my end, or, if present there, has clearly a subordinate character. But in aversion the mere negation of what I change is my principal end, and any positive aspect of this main end is subordinate or even quite unconsidered. Positive desire, we may say, is for a specified something, and this implies the negation of some aspect of the world; but the aspect thus to be destroyed need not in desire be either specified or considered. But the aversion to something contains essentially and explicitly a destructive change of that something, at least in some aspect, while on the other

hand the positive attendant or result of this negation need not be specified or even in any way considered.

Without refinements we may perhaps put the matter as follows. The negation in positive desire need be no more than indirect and incidental, and, even where it appears in the main end, it appears as subordinate. And in positive desire the negation need be neither specified nor considered. But in aversion it is the positive side which need be neither considered nor specified, and in any case that positive side is secondary and is not the main object. We shall realise this if we consider some instance of aversion such as the gamekeeper's pursuit and destruction of vermin. This process of course has its positive side, and in this positive side the man may take pride and delight, and it is possible even that he may wish for no better employment. But with this we are concerned no longer with a simple aversion. We have a mixed state in which the aversion more and more is outbalanced. And by an increase of emphasis on the positive side, and by a subordination to that of the mere negative aspect, the aversion in the end might even become transformed wholly and lost. Once find a pleasure in the pursuit of an animal, however noxious, and more or less, according to the conditions, it tends to lose its character as an object of aversion.

We can now dispose of a difficulty which may seem to arise from the difference in the relations of aversion and desire to existence. The object of aversion, we may be told, must exist, while the object never exists in the case of desire. You cannot in other words desire that which is actual, while you can be averse to it. But there is a dangerous confusion here as to the meaning of 'object'. The object may mean either the existing not-self which is before me, or it may mean on the other hand my ideal end. Now in no case can my idea itself be something which actually exists; and on the other side, both in desire and in aversion alike, there is opposed to my idea something which I represent to myself as actually existing. This opposition of idea to fact holds even where the fact is imaginary. I can thus be averse to a calamity though I do not really expect it,[1] and I cannot desire to eat an imaginary apple unless for the moment, and as against the idea of eating, I regard it as actual. And there is no difference so far in principle between desire and aversion. They differ in principle through the diversity of

[1] I am forced in this and some other points to dissent from Waitz, *Lehrbuch*, p. 444, by whose remarks I have however profited.

that relation to existence which is not external, but is contained within their respective ideal ends. And it is contained, we must remember, in one case explicitly, and in the other case more or less by way of implication. Thus the negation of something taken to exist is the main end of aversion, while the appearance in existence of something positive is the main end of desire. And the further alteration of existence by this positive addition may be a result which in desire, we have seen, is not even considered. In any case however, where negation is contemplated in desire, that negation is subordinate to the positive aspect. But it would hardly repay us, I think, to enlarge further on this head.[1]

The mistaken co-ordination of aversion with desire has arisen, I presume, in several ways. It has been helped perhaps by the confusion which we have just briefly noticed, and it is connected certainly with logical errors as to predication. But the mistake has come perhaps mainly from a natural but misleading parallel, and by a transference to aversion and desire of the opposition between pleasure and pain. Unless we separate pain from unpleasantness, pleasure and pain are on one level. They stand to each other, we may say, as co-ordinate opposites. And since doubtless aversion has more to do with pain, and desire more to do with pleasure, one is led to assume that the relation between each pair is the same. And since from this there follows a variety of mistaken results, I must state briefly the connexion of pleasure and pain with desire and aversion.

In both desire and aversion, if we do not distinguish between pain and unpleasantness, we must to some extent have the presence of both pleasure and pain. The idea of the end must in positive desire be felt to be pleasant, and the same thing to a less degree will hold good in aversion. In

[1] Since this article was written I have made acquaintance with Dr. Pfänder's thoughtful essay, *Phänomenologie des Wollens*. Dr. Pfänder there (p. 71) criticises the doctrine that aversion has a negatively determined end. He has however, I do not know why, understood negation here as bare privation or absence; and certainly, so understood, the doctrine he criticises becomes untenable. In the presence of a painful noise, *e.g.*, I may desire its absence, but that desire is not, as such, an aversion. It is not the mere absence, but it is the positive suppression or avoidance of what annoys me, that is really desired in aversion. Dr. Pfänder appears to me to be confused on this head, or to be dealing with some confused statement to which he does not refer. Again, pp. 109-111, he objects that a negative will may be a will for a bare not-doing. But unless my idea changes something which otherwise would be and is therefore taken to exist, I must insist that we have not a real case of volition at all. See MIND, N.S., No. 44, p. 440. And, again, the will to produce a state of privation is, as such, a positive and not a negative volition.

both alike the whole state may according to the conditions be either pleasant or painful, though the latter case will more often be found to exist in aversion. But, since both are complex, we may have in each a preponderance of either pleasure or pain. In aversion the felt hostility of existence to the idea will be painful, but this same feature must appear also in positive desire. In both the felt tension of idea against existence will not fail to produce uneasiness, however slight that may be and on the whole outweighed. And thus the distinction, so far, may be said to consist merely in degree; but we must from this go on to take account of a further difference. In positive desire the idea of pleasure does not always qualify the object. In desire, that is, I must indeed always feel pleasure in the idea, but pleasure may either enter or not enter into the content of the end, and its entrance, where it enters, does not belong to the essence of desire. But in aversion, while in the same way to some extent I must with my idea feel some pleasure, on the other hand the internal content of my idea must be qualified by pain. Unless the painfulness of the object, upon which the process of negation is to fall, enters itself beforehand as an idea into my idea of this process, I cannot think that in the proper sense we have an aversion. We may again contrast here the desire to kill an animal for sport with the desire by any means to destroy noxious vermin. In the first of these cases we have plainly no aversion. You cannot desire the mere negation of a thing unless that thing comes before your mind as injurious and painful. For the positive side of such a mere negation is not specified except as the removal of that object to which we are averse. And, unless the object were painful, its blank removal could not, so far as I see, be desired. On the other hand if the special process of negation is itself directly desired, we are to that extent not concerned with a pure aversion. Thus in all aversion the positive aspect of removal must be desired; while on the other side no aversion is pure unless the means of removal are desired, not in their own character but merely as means.

Aversion and positive desire are thus in principle distinct. But in each the complication of pain and pleasure may be great, and there is a tendency in each to transform itself and to pass into the other. In many cases we find them existing side by side in a mixed state, while in other cases co-existence gives way to more or less complete subordination. But a desire or an aversion, where completely subordinate, has ceased, we must remember, to exist as an actual aversion or desire.

This last remark has a wide and important bearing (MIND, N.S., No. 43), and it leads us here to the discussion of a well-known question. Can I will that to which, while willing it, I have an actual aversion? If the doctrine laid down in the article just referred to is sound, a volition of this kind will be clearly impossible. Given an actual aversion, you would have an idea which conflicts with the idea implied in your will, and you would as a result have no action or, if an action, no will. If on the other hand your positive idea has prevailed over your aversion, the aversion has been banished or else made subordinate. But in the latter case it has been modified and has ceased to be an actual aversion. The will to do what I hate, although I hate it, must imply that in some sense my hatred is changed. The negation has been turned into an element within a complex positive idea. The aversion has lost its independence, and, however painful, it is no longer an actual aversion. I am still 'averse' in this sense that a mass of hostile feeling remains, and this mass struggles perhaps violently against the realisation of my positive idea, and it tends constantly to restore the independence of its own idea. But, so long as its idea does not break loose but is held as subordinate, there cannot in fact be an actual aversion. And in the same way, though desirous, I may fail to have an actual desire.

I shall soon return to this distinction between an aversion and a mere condition of averseness, but at present must remark further on the co-existence of aversion and will. The statement that I cannot desire and will that to which I am at the same time averse is seen, when compared with facts, to be clearly erroneous. The mistake arises partly from neglect of the distinction which we have just made, but it is mainly due perhaps to a failure in observation. The great complexity of aspects contained in aversion and desire, and the presence in each of elements, pleasurable and painful, which come from a variety of sources, is often not noticed. We have seen that a desire, when considered as a whole, may be painful, just as an aversion, when it is taken on the whole, may be pleasant. We may instance the desire of a mother to save her child when she fears that she cannot, and again the pleasure of destroying what we hate where there is not too much trouble or danger. And hence, though I can will that to which I am averse without also desiring it, I certainly on the other hand may desire it and desire it eagerly. The alternative which by itself excites our repulsion may, as an escape from the intolerable, be desired and may even be regarded with complacency. And we may be

aware of this pleasure, or again, because the pleasure is outweighed by pain, we may, despite the actual fact, deny its existence. But I cannot here enter further into the detail of these complicated states.[1]

I will now return to the distinction which we noted in passing. We may be desirous or averse although we have not an actual desire or aversion, and in the same way we can have a standing or permanent will to do something when the corresponding volition is plainly absent. I have had to refer to this point in a former article (MIND, N.S., No. 41, p. 26), and a very brief statement here will, I think, be sufficient.

A state of desire or aversion, where the actual aversion or desire is not present, has two meanings, and these different senses may be conjoined or used separately. In the first sense I have a group of feelings, perceptions, and perhaps movements, such as belong to the actual aversion or desire, but, when taken by themselves, are incomplete and stop short of it. This group continually tends to produce the complete and actual state, and it may therefore be called its conditional presence. But even in the absence of such a group we may be said still to desire or dislike, if it is understood that, given the object, we should certainly assume that attitude towards it. And we may speak in the same sense of a will which is standing or permanent. We may mean by this the constant presence of actual feelings and ideas, such as go to make, let us say, a volition to injure, and such as, given the occasion, would actually produce the volition. And we have so far an habitual mood of a certain character. But again by a standing will we may signify no more than a general disposition to injure. Whatever may be in fact my present mood, and whatever may be the ideas and feelings which are now actually in my mind, I should, without regard

[1] *Cf.* MIND, N.S., No. 43, and O.S., No. 49, p. 17. Mr. Shand (pp. 324-325) rejects the view stated in the text, but I must be allowed to doubt his having apprehended it rightly. He apparently fails generally to see how in desire pain and pleasure are mixed. An example of desire for a painful alternative is found in Claudio's mood of "flowery tenderness" for death. And in De Goncourt's *Germinie*, p. 15, we hear of "une attente de la mort qui devenait à la fin une impatience de mourir". The defect in Mr. Shand's account becomes visible from another side when he fails to see that an act done from mere principle tends naturally to become an act done from desire (pp. 323-324). The pain caused by injury to the principle must tend to produce a desire for relief. I think that if Mr. Shand generally had done more justice to the actual facts, he would have felt less need to betake himself to something inexplicable behind them. But, however that may be, his articles have not failed to throw light on the subject.

to this, under certain conditions have a volition to injure. And since these conditions may be expected to occur in fact, my will to injure is taken already in some sense to exist. We noticed formerly the same use in the case of attention (*ibid.*). I may be 'attending' to a business although no actual attention is present. I am or I have something which on the occasion would turn to attention. And so, since I have all the attention which is at present required for my purpose, you may say that I attend really although no attention is there. In these cases we use a licence which not unfrequently degenerates into error, where the standing desire or will is assumed to be really an actual will or conation. But, when a man is reposing placidly with no idea or feeling except of tranquil enjoyment, to say of him that at this moment he has an actual conation or will to take revenge on his enemy would be surely mistaken. To assert this would be at least to take an undue liberty with language.

If you ask for the ultimate nature of a permanent disposition to act, I should myself decline in psychology even to entertain such a problem. But how the standing will passes into an actual volition is a question which on the whole is not difficult to answer. Apart from the oscillations of an habitual mood, which is a matter not here to be discussed, the actual volition in the main is produced by Redintegration. Something that occurs to us has a character which falls under the law of our disposition. The character may fall under that law directly, or again indirectly and through a further principle, and the connexion again may be positive or negative. In any case the disposition in this way becomes active, and brings into fact the further element which it ideally contains. But this is a point to which we shall very soon be compelled to return.

There are a number of questions about desire which I must here leave untouched,[1] but I will briefly notice the relation between desire and conation. Does all desire contain, or is it all identical with, conation and striving? An affirmative answer is common, but, I think, cannot be sustained if conation is to stand for the experienced striving of my self. But conation may be used besides in two different senses (MIND, N.S., No. 40). It may signify a striving which is not as such experienced at all, or is at any rate not so experienced within myself. Or, again, it may mean a striving which is actually experienced as such within me, and yet is

[1] For some of these see MIND, O.S., No. 49.

the striving only of some psychical element, such as a fixed idea, and is not the striving of my self. I do not however propose to take further account here of either of these senses.

If then conation is understood as the experienced striving of my self, I cannot perceive that everywhere conation is involved in desire. It may be argued that without conation desire would not have begun to exist. Want and need, however urgently experienced, are not yet desire, since they lack the idea of an object which is opposed as an end to existence. And the argument would urge that, apart from movements which in fact realise the end, the end as an idea in desire would not have come into being. And the idea of these movements will therefore, it is said, qualify the end and object of desire. And apart from these movements, if the satisfaction could ever be gained, at least the idea of it could not possibly be retained by the mind. But the presence of these movements in idea will most certainly involve a conation. And this active attitude remains, it will be further urged, through all our mental development, and everywhere will qualify the object of desire, even in a longing, say, for warmth. Thus the desired object must contain always to some extent the idea of my actively getting it, and every desire therefore will essentially involve a conation. Now I admit the force of this argument, and I agree that, speaking broadly, desire will not be separate in its origin from conation. I could not maintain that without conation it in no possible case arises; but such an origin of desire, I admit, would certainly be in fact exceptional. On the other hand I cannot argue that, if in its beginning desire depends on conation, it therefore now must involve a conation in its essence. I do not see why the ideal element of my acting for some end should not in certain cases fall out of my idea of that end. And, since in many cases I cannot discover that such an element now exists, I must reject the conclusion that in all desire a conation is involved.

And there is a counter-argument which to my mind has considerable weight. An intense desire for relief may be followed by an actual relief, and by a perception and a sense of complete satisfaction. But certainly in some cases the relief is not experienced as having been attained by my action, and, if all desire is conation, such a result seems to me hardly explicable. You may indeed contend that the experience required escapes my notice, although present in the result, just as, before the result, the conation was actual though I failed to observe it. But I prefer in each case to accept the evidence of the fact which I observe, and I must

therefore deny that in all desire without exception a conation is implied. If it is to be always present it will be the conation of some psychical element not my self, or it will be the striving of something which itself does not enter into my experienced world.

I must go on from this to point out the distinctive character of Wish. Desire and wish tend naturally in fact to pass one into the other, and the distinction in language between them is at times not maintained. But this distinction exists, and it corresponds to a difference in principle, and on this point it is well to be on our guard against error.

In the first place a wish is not a striving or conation. It is, again, not the general head under which all desire falls,[1] nor can a desire be defined as a wish the realisation of which is judged possible. For no such judgment, we saw, is really involved in desire, nor in accordance with language can desire be taken to fall under wish. We shall find on the contrary that wish is a specialised development from desire. Further a wish is not distinguished from a desire by its weakness. A wish, it is true, generally is inclined to be weak; and, for a reason we shall point out, a wish cannot intensify itself beyond a certain degree without passing from a mere wish to become a desire. But, since desires are of all strengths, the essential difference could not lie in this point. Thus when Prof. Sully tells us (*Human Mind*, ii., 208) that wish "marks off the *nascent* desires which are only momentary, being instantly dismissed *as futile*," I am myself unable to verify his assertion. For it seems in the first place obvious that wishes are not all momentary and instantly dismissed. And again, if wishes are taken to involve a "nascent" desire, it is hard to see how that feature by itself is to serve as their differential character. To suppose that, wherever you have a "nascent" and momentary desire, you have in the proper sense a wish, seems contrary to fact. And in short I do not see how Prof. Sully would justify his assertions, unless through that virtue which evidently to his mind resides in such phrases as "nascent" (see below p. 20). To pass to another point, the difference of wish from desire does not lie in this, that in desire it is my action to which the real world is opposed, while in wish this world is contrary to something else. Desire we have seen does not in all cases coincide with conation, and again my desire

[1] This untenable view is advocated by Prof. Ehrenfels in his interesting study *Fühlen und Wollen*, and again in his *Werttheorie*.

for an end which is to be accomplished by another cannot possibly in all cases be termed a mere wish. The shipwrecked crew surely can be said to desire that the life-boat may reach them.

Wish is a desire which in a certain way has been specialised and limited. The idea of satisfaction has in a wish been broken from its connexion with my actual reality. The idea is disconnected but at the same time it is retained, and its realisation has been imagined in a world which is not the world of my reality. This world may according to the circumstances be more or less defined or indefinite, but it never ceases in a genuine wish to appear as imaginary. And hence the collision of the idea with fact can to a greater or less extent be suppressed. Wish is desire for an imaginary end which, because it is imaginary, can be regarded as attained. And hence a wish, so far as it is a desire which is imagined as satisfied, has in this respect passed beyond a simple desire. But in another respect a wish remains less than desire, since the imaginary object and its fruition are recognised as out of our reach. Our wish is therefore a *mere* wish, and it is an idea which is sundered from the real order. But since this absence of relation tends to come to us in experience as a relation which is negative, a wish entails logically, and it continually in fact tends to pass into, an actual desire.

The idea in wish is separated from our world by the perceived failure of means to its realisation. And the failure may come to us as general, or again as conditioned by a special obstacle either negative or positive. This obstacle may consist merely in my fear or my scruple, but, so long as it qualifies the real world, it prevents the presence of my simple desire. If then I place my desire in an imagined world where this obstacle does not hold, I have a wish. And because this other world is recognised as not actually present, my wish does not lead me to an act or an attempt.[1] Being in a sense satisfied beyond the reality, it is so far removed from collision with fact. But, as we have seen, in so far as it is not actually satisfied, a wish tends to collide with the world and to become a desire.

Wish arises from the retention of the idea despite our inability to give it reality. The idea is retained by the persistence of the want which remains unsatisfied and compressed. And this want, we have seen, frees itself and

[1] 'I wish you to do this' is less peremptory than a simple imperative, because it is hardly unconditional. But 'I wish that you would' is of course the correct expression of a wish.

expands into a heaven of its own. We have in wish a sense that fruition is at once more than possible and yet less so, according as we look first on one world and then on the other. A wish is innocent, because disconnected from the actual world. It is enervating, so far as it rests in enjoyment divorced from action. It is insidious, because its idea, being actually unrealised, tends to pass into simple desire.

The passage of mere wish into desire calls for little remark. The obstacle that bars our desired end may for a moment be hidden from our sight, or it may pass from our mind in a moment's forgetfulness. Or on the other hand some unlooked-for means of realisation may show itself. In either case a tension between my idea and the actual world is set up, and the old unsatisfied want now breaks out into an actual desire. And, if wish becomes intense beyond a certain point, this result is inevitable. For the ideal satisfaction becomes too shadowy, while on the other side the idea, growing dominant, suggests forcibly its own realisation, even against the knowledge that this cannot be attained. When thirsty beyond a certain point a man cannot confine himself to a mere wish for water, and the unfortunate lover is condemned not to rest in mere wishes. This is the truth perverted into the doctrine that wish consists in a weak desire. But because a mere wish, if you intensify it, is transformed into a desire, you cannot conclude that a desire, if you weaken it, will through its weakness become a mere wish. For in one sense a wish, we have seen, is more special and is more complex than desire.[1]

We now approach a part of our inquiry which perhaps

[1] It will be instructive to note here the difference between wish and resolve. In the first place a wish is for a mere result and does not essentially imply agency on my part. In the second place my resolve is directed upon the real world. In resolve this real world is not the world perceived as immediately present, and in this point, we have seen, resolve is distinguished from will. On the other hand the world of resolve is not discontinuous with my world as it exists here and now. There is no breach between the two; for the present world is regarded as extending itself into the future, and the present world is contemplated as itself actually there before me in resolve, notwithstanding an interval and even perhaps a condition. And it is only because it is directed upon the real world, as in this sense actually present, that my resolve is a volition, so far as it is one. On the other side in wish we have a world which we are aware is imaginary. This world is therefore not contemplated as the prolongation of reality, but is estranged from the real, and is sundered from it by a breach in nature. And to throw a volition across such a breach does not even suggest itself as possible. The subject of resolve has been discussed in MIND, N.S., No. 44.

has been too long deferred, and must ask how it is that in volition the idea realises itself. That the idea does realise itself is at least an apparent fact. And, if this fact is mere appearance, then will assuredly has become an illusion. And the illusion remains an illusion however great our success in explaining its origin. But on the other hand the belief in the existence of such an illusion rests, so far as I see, on misunderstanding and prejudice. I will here discuss this no further than once more briefly to point out what is meant generally by the action of the idea in volition. The idea is a cause of the result in which its content is realised, but it is not the sole and whole cause of that result. And if cause is to mean complete cause, you may maintain with us the reality of will, and yet may deny that your mere psychical state of the moment is the cause of what follows, or is even the cause of what follows merely on the psychical side. And still less can the idea, being psychically a mere element in your state, usurp the position of a complete cause. But the causality of the idea in will need involve no such meaning as this. The idea is a positive condition which is a genuine element in the actual cause, and it is a condition of such importance that we may fairly claim that its presence makes the difference to what happens.[1] And, with anything less than this, I must repeat that will becomes an illusion. Even if the idea were necessary as an effect which is collateral with and so united to the result, that mere necessity would still turn will into a false appearance. For you seem once more to have denied that the idea actually goes to produce the result. And, if you cannot affirm this, you cannot assert in any proper sense the existence of will.

Let us then proceed to ask in what way the idea realises itself. We provisionally assumed the validity of ideo-motor action, but that assumption must now be allowed to drop. We must inquire therefore under what law or under what laws in psychology this fact of the idea's self-realisation will fall. And I will begin by dismissing a view which is equally common and erroneous. A desire and a conation on this view are essential to will, and the presence of these together with the idea explains the further result.[2] But if we look without prejudice at the facts no such doctrine can stand.

[1] I cannot of course here enter into an inquiry into the exact nature of cause and condition positive and negative. I have already had to touch on the necessity for the idea's action in MIND, N.S., No. 44.

[2] This matter is discussed further in MIND, O.S., No. 49. I do not propose to do more than mention the old mistake that the object of all desire is pleasure. We may fairly, I think, call this doctrine exploded.

It is not the fact that desire and conation are to be found in all cases of will. Acts done at once from imitation or in obedience to an order, and generally acts which at once ensue from the suggestion of an idea, furnish instances which on this point seem really conclusive. No one, apart from theory, could fairly deny that of these actions at least some are volitions, or reasonably assert that in every case a desire or conation in any proper sense is present. When the sequence is delayed I admit that there is some ground for doubt. You may argue here that delay must cause necessarily a tension between the idea and existence, and that this tension must amount to conation and desire. But for myself I cannot accept even this modified conclusion. Where after delay volition follows from an unpleasant fixed idea, I cannot allow that in all such cases there is a desire or a conation of my self, and yet on the other side no one here, except to save a theory, would deny everywhere, where desire is absent, the presence of will. And where there is no delay, and where the result follows at once from the idea, the above contention, it appears to me, wholly breaks down. The existence need not be perceived in such a case as resisting the idea. On the contrary all that is implied in such a case of volition is that the existing not-self should be felt as opposite to such an extent that its change is perceived as an alteration made by me. But this opposition need not amount to the tension involved in desire and conation. And again that felt pleasure in the idea which is certainly necessary for desire (MIND, O.S., No. 49, pp. 15-16) may be absent, it seems to me, in some cases of will. We must conclude therefore that conation and desire, even if usual in volition, cannot, if we respect the facts, be taken as essential and necessary.[1] There are actions—to

[1] I cannot verify the presence of felt pleasure in the idea in all cases of volition, but this pleasure on the other hand (MIND, O.S., No. 49) seems essential to desire. It must be understood (I will repeat) that, in speaking here of desire and conation, I am excluding the desire or conation of any mere element in my self, or again any desire or conation which is not experienced as such. On the alleged necessity for the presence of desire in volition the reader may find it instructive, and perhaps entertaining, to consult Prof. Sully (*Human Mind*, ii., 214 foll.). Prof. Sully in my opinion neither states fully nor indeed understands the case which it is incumbent on him to meet, and even then, in his attempt to show the presence of desire in all will, he begins even himself dimly to discover his collision with fact. He is forced to substitute for "desire" such phrases as "analogue of desire," "nascent desire," and "rudiment of desire," and he is driven to speak of an action as "half-volitional". But the seeking refuge in such unexplained, if not meaningless, phrases is, I would submit, an unconscious admission of failure. The only thing

repeat my argument—which cannot be shown in fact to involve conation or desire, and some of these actions every one apart from theory would call volitions. And according to my definition of will such actions are volitions really. And I urge this agreement of doctrine with usage as some evidence that the definition which I offer is true. Another psychologist may reply that such actions cannot be volitions because they do not conform to his definition of will. And this answer may stand so long as his account is neither questioned nor denied. But afterwards, and when the very point at issue is the truth or falsehood of his account, it is obvious that any such position is fatally unsound.[1] If in other words an objection against the view of will which I adopt is to hold, that objection must be founded upon actual fact.

But even if desire and conation were everywhere present in will, their presence would supply no answer to the question before us. We want to understand how my idea is able in each case to gain its own particular reality. And when you point to conation and desire as that bridge by which the passage is made, your answer, even if it were not contrary to fact, seems absurdly deficient. I may desire and I may strive (let us suppose) to skate or to play on the organ, or I may struggle to recall to memory some half-forgotten name, and yet, with no means of passage beyond a bare effort, my idea surely never would pass into reality. The passage from the idea to inward or to outward fact requires some particular bridge, and such a bridge is not given by the mere presence of a desire or a conation.

You may repeat your old song that the springs of action are pleasure and pain, and that, wherever I will, it is in the end these which produce my volition. But (*a*) in the first place, I may once more remark, your statement is contrary to fact. There are cases of rapid volition where such a doctrine is even seen plainly to break down. And (*b*) in the second place, to identify pain and pleasure with aversion and desire is surely to fall into a palpable and gross mistake. And it is not true even that pain and pleasure are always

like an argument to be found in Prof. Sully's pages is the contention that pleasure and pain are of such importance in development that they must be regarded as even now essential to volition. I shall deal with this point hereafter.

[1] This seems an evident truth, but it is too often not recognised in practice. The case of "disinterested actions" in Prof. Bain's psychology may perhaps be cited as a well-known instance of its neglect. But in other forms this neglect is still too prevalent in the psychology of will.

accompanied by aversion and desire. Nor in the case of pleasure do the facts allow us to admit even a tendency always to produce motion rather than rest.[1] But (*c*) in no case could pleasure and pain explain the particular detail of will. That which has to be explained is the passing, in a given individual case, of this particular idea to its own special reality. And even if against the facts we admit that apart from the influence of pleasure and pain there is in no case volition—even if we allow that everywhere in this sense pleasure and pain produce action—yet with this the essence of the volitional passage remains unexplained. We have not learnt how this idea, in distinction from that other idea, is able to realise its own special existence. The whip may start the horses, but the whip will throw no bridge across the stream. You must (we may put it otherwise) have machinery of a certain kind before you can set it in motion for a particular end. And I cannot see how by any stretch general pleasure and pain can be taken to serve as special machinery.[2]

Let us pass on to ask in what this machinery does really consist. Our answer to this question will traverse ground which is in the main quite familiar, and we may content ourselves therefore with a summary statement. We have in the first place a variety of special 'dispositions,' and we have in the second place the presence of some ideal suggestion which is at the same time the presence of the starting-point of some one disposition. The consequent passage of this special disposition into act is, we may say, the bridge which

[1] For a discussion of all these points I must once more refer the reader to MIND, O.S., No. 49. The existence of pleasures without want or desire is an old and well-known doctrine which I should have thought could not fairly be ignored, and in this opinion I am not shaken even by the following oracle, "Wollen wir näher beschreiben, wass wir denn bei Lust und Unlust in uns finden, so wissen wir dies nicht anschaulicher zu thun, als indem wir die Lust als ein Streben nach dem Gegenstand hin, die Unlust als ein Widerstreben gegen ihn bezeichnen," Wundt, *Phys. Psych.*, i., 589. I must be excused from any attempt to reproduce this sentence in English. I understand Prof. Külpe to dissent from it (*Lehre von Willen*, pp. 26, 49).

[2] And we must of course say the same thing of Attention. The doctrine that attention is the essence of will was popularised by the late Dr. Carpenter (*Mental Physiology*, 1874), and I am personally indebted to him for having then forced that question into the front. Dr. Carpenter's work in psychology cannot, I imagine, be rated highly, but on one or two points he has not generally gained the credit which he seems really to have deserved. On the subject of Attention I must refer to MIND, N.S., No. 41.

carries our idea over into reality.[1] (*a*) As to the nature of these dispositions I can say very little. They either are simple, or else are complex wholes of more or less systematic detail. And they are native, or otherwise independent, or again on the other hand to a greater or a less extent have been acquired. On their origin I shall have however to say something hereafter. Dispositions again may be merely physical at first, or may later become so, and they may be physical wholly or merely in some part of their subordinate detail.[2] But, to serve in volition proper as a means of transition, a disposition must possess in all cases a psychical aspect. The real essence of a disposition I make no attempt to explain, but in and for psychology it is a standing tendency or an individual law. Given, that is, one of two connected elements, physical or psychical or again possessing both characters, a disposition is the tendency for the other element to appear in consequence. And this second element itself may have a single or a double character. (*b*) On the other side we have an idea suggested in fact, an idea which is more or less identical in character with the first element of some psychical disposition. And this idea may come direct from a perception, or it may be suggested again in some other way. (*c*) The disposition in this manner is started into action, and the process which we have described is of course so far what is called Redintegration. (*d*) And at this point we may seem to encounter a difficulty. In will, as we know, the suggested idea is the idea of the end, and therefore the idea which is required in volition must be the idea of the disposition's result. But on the other side to start the disposition, and so to produce the actual result, what you want is the idea of the disposition's beginning. For dispositions, if they ever work in both directions, do not work thus in general. Let us suppose, for example, that the sight or the smell of a fruit has somehow—let us say through an original disposition[3]—produced the satisfaction of eating it. This experience, we may suppose further, has left behind it its result in a new and acquired disposition which at once is physical and psychical. The sensations and feelings, which accompanied

[1] I will ask lower down if there is any exception to this general law of will.

[2] By "merely physical" I do not mean merely physical absolutely, but simply with reference to the consciousness of the subject. And again, when I speak of an aspect as psychical, I do not mean to deny that it possesses also a physical side.

[3] This original disposition will be physical in part or physical wholly. It is unnecessary for our present purpose to decide between these alternatives.

the beginning of the process of eating will now tend to bring in the actual continuance and end of that process. And there will be a tendency also for any suggested idea of the fruit to qualify itself further by the ideal sweetness of the fruit in my mouth.[1] But, it will be objected, this ideal sweetness, however much present and desired, will not reproduce the actual process of taking and eating. For the sweetness, though identified with the result of the tendency, is not identified with that point from which the tendency starts. In other words that idea of the end, which is essential to will, is useless for will because in short it is not the idea of the beginning.

To this objection I reply that dispositions are not merely successive.[2] The operation of seeing and eating the fruit is, for example, a connected series. It is a whole in which an identical character is maintained and developed. And the various stages of the detailed process, since they all qualify one whole, are connected with this whole; and they are connected, through this whole, with one another throughout. The sensations and feelings, which belong to the beginning of the process of eating, belong also to that same fruit which is connected with the taste of sweetness. And the idea of sweetness therefore, indirectly and by means of this unity, can ideally revive the felt aspect of the beginning. But, when this aspect is present, we have seen that the disposition to eat has now been supplied with the condition of its actual movement. And to object that a suggested idea, being a mere idea, is not the psychical fact required for this beginning would clearly be mistaken.[3] It is enough

[1] I do not deny that, without any ideal modification of perceptions in themselves, there might up to a certain point be a development of diverse reactions corresponding to different perceptions. Objects, that is, not modified themselves ideally so as in this way to have acquired meanings, might become associated through trials, through failures and successes, each externally with a diverse act. The connexions here would be external psychically, because the acquired dispositions would not be psychical. How far such a development is possible in fact I need not discuss, because I am unable to see how upon this line volition would ever be developed. I have found Dr. Stout's teaching on the nature of the 'disposition' left behind by practical experience not easy to understand. It is to my mind deficient in clearness. See *Manual*, bk. i., chap. 2, and bk. iii., chap. 1.

[2] I have already entered somewhat more fully into this very important matter in MIND, N.S., No. 30, p. 7, to which I would refer the reader. *Cf.* also *Appearance*, p. 49.

[3] An idea, so far as referred away from my psychical moment to another subject, is certainly so far an abstraction from psychical fact. On the other hand, if confined to this aspect of itself, the idea could not be my

that you have something, whatever it may be, which possesses the right content. And it is an error to imagine in the soul a gulf fixed so that identity cannot traverse it.

The passage in volition from idea to fact, we said, was made by a bridge. And the bridge, we find, is a disposition the latter element of which has through experience become qualified in idea by its starting-point. If in its origin the disposition is but physical, there is so far no will. But through experience of the process, both in its beginning and its result, we have now an acquired disposition which on one side of its working is psychical. The result is qualified in idea by those feelings which made part of the beginning, and there is a tendency for these feelings, when suggested, to pass into the actual result. And the suggested end therefore serves as the ideal beginning, and itself starts the machinery which bridges the passage into fact.

The new result, which in this way has been produced, need not of course reproduce the old result in every feature. The disposition, we must remember, is in itself always general. In our mental development dispositions are specified into subordinate varieties, but no disposition, however individual, can lose the character of a general tendency. And the present idea of the end coincides but generally with that disposition which it excites and which carries it into fact. It is the present situation which, we may say, selects through an idea the special tendency required, and then itself from that basis particularises the actual result in accordance with itself. And there would naturally be room at this point for much discussion and comment. But the difficulty at this point, I would add, does not attach itself specially to volition, but belongs to the doctrine of reproduction in general. Within the limits of the present inquiry it would be difficult to enter further into the subject, and I do not think that here we are called on to do so.

I will now proceed to deal briefly with several objections. (*a*) "There is a fatal defect," I may be told, "in the account which has been offered; for it starts the disposition from its psychical side, and any such start is impossible. Even if we suppose that a psychical result could conceivably so follow, we must deny the sequence of a physical effect from a psychical cause or condition. You, it is true, do not take the psychical antecedent as bare; but, and this is the vital point, you regard it as active. But the soul and its states, if not

idea at all. The idea in short, to be an idea, must have its own psychical existence, which existence is not referred away as above.

inert altogether, are inert necessarily in relation to the physical series." This objection however denies absolutely the real existence of volition, and when on the other hand we ask for its own foundation and basis, that basis is found to consist in mere prejudice.[1] (*b*) "Your account," it may be said, "conflicts with the course of fact as ascertained by physiology." This is an objection into which my knowledge does not permit me to enter. But I know that for an outsider to assume the finality of such a physiological result, even if that result for a time had found a general acceptance, would be at least to desert the guidance of probability. I therefore do not think that we are called on to discuss what would follow in the event of such a final conflict.

(*c*) It may be objected that the above explanation, if correct in itself, is inadequate for its purpose. If no more than this were wanted in order for the idea to carry itself out into act, the idea of an action could never or seldom remain unrealised. But such unrealised ideas upon the other hand are a common experience. From which it follows that the essence of volition must consist in something other than ideo-motor action as explained above. But a sufficient reply to this objection is really not difficult. A disposition, even where it is not a practical tendency, is something the result from which is in any case conditional. And we have long ago seen that, for an idea to realise itself, that idea must be dominant. I will however add some remarks here by way of further explanation. (i.) An idea has against it always the general inertia of my present condition (*cf.* James, ii., 526). This, to speak in the abstract, is an obstacle which is opposed to any possible change. Hence, if you take an idea weak in itself and unsupported from without, my mere inertia is enough to prevent that idea's realisation. Where I am resting placidly or again am mechanically employed, the bare irrelevant suggestion of a change, if that is weak,

[1] On the connexion of soul and body see my *Appearance*. The above prejudice of course is widely prevalent. Prof. Titchener for example, in his *Outline of Psych.*, p. 343, instructs the student that to suppose a causal connexion between physical and psychical, if perhaps not forbidden by "metaphysics," is contrary to "logic". For myself I really do not know whether I am even permitted by "logic" to hope that the student does not wholly depend for his information upon Prof. Titchener. Since writing the above I have made acquaintance with Prof. Münsterberg's interesting *Grundzüge der Psych.* No one who can appreciate good work would speak disrespectfully of Prof. Münsterberg. At the same time I do not understand how he can think that those, who on the above point reject his conclusion, would accept the premisses from which he draws it.

will by itself be ineffective.[1] (ii.) Apart from some unusual strength, absolute or relative, an idea of change will not dominate unless it finds support in my present condition. There may be a present group of sensations in harmony with the beginning of the change, together with uneasiness and psychical movement in the direction required. And this may be assisted by the perception of some special object. And again a special disposition, or group of dispositions, connected with the idea may be predominant and explosive. And of course, *mutatis mutandis*, there is the same kind of support from the physical side. We may thus say generally that, apart from exceptional strength, an idea will not dominate except through the favour it receives. And, when it finds the mind engaged specially in an opposite direction, the suggested idea will under ordinary conditions fail to gain control. (iii.) Up to this point we have considered cases where a genuine idea of change has been present, but where that idea has failed to dominate and move me. But the idea may have been qualified, so as itself not to be the idea of a change which is to happen here and now. The way of connexion with my real world may be seen by me to be absent, as where the suggested change is regarded as merely imaginary. Or again the idea of change may have become an element in some wider idea, a whole in which it is taken as subordinated or even negated. We have in none of these cases the dominant idea of a change in my world, and, even if the change were realised, we should not have here a genuine volition (*cf.* MIND, N.S., Nos. 43 and 44).

I will pass from these objections to deal with another kind of difficulty. Your account, it may be said, is based on redintegration, and yet that law, however valid, is certainly not final. The tendency of every idea to realise itself in existence is really more ultimate, and even beyond this we may find a law which is still more fundamental. Every psychical element by itself involves a more or less unnatural mutilation and sundering, and every such element seeks to repair its defect. It therefore tends to reproduce its complement and to restore itself to the full character of the whole. But (however that may be) I see no advantage in discussing such a doctrine here. For if the self-realisation of an idea in will is an instance of this ultimate tendency, that in no way would conflict with our general account. And since an ultimate tendency does not realise itself, I presume, without

[1] I should be inclined to illustrate here by the absence in general of actual movement in dreams. See MIND, N.S., No. 11.

particular machinery, we were right in any case to seek that machinery in dispositions and in redintegration. There is however a further point on which I admit that my account is inadequate. Redintegration works, I believe, in all cases of volition, and in most cases I think that its working suffices. But there are other cases which seem to call for an additional law. An idea has a tendency everywhere to reinforce that existence which possesses its content, and, where existence has a content which partly corresponds to the idea, the idea has a tendency to create in fact a completer agreement. It thus transforms the existence to its own character, and so realises itself. Now redintegration, it may be fairly said, will here not wholly account for the result, and we must therefore admit a further law, say, of Fusion or Blending. This is a difficult point which I am not disposed here to discuss, but the suggested conclusion once more need occasion no difficulty. If we recognise a tendency which in the end falls outside of redintegration, and even if we go on to call that tendency irreducible and ultimate, the doctrine of volition which has been offered remains unshaken. Volition still will consist in the self-realisation of an idea, and redintegration will still be the machinery which for the most part brings about that result. Our account in short must be modified merely so far that we have to admit the working to some extent of a further machinery.[1] There is therefore no room at this point to intrude with a faculty of Apperception or Attention, and to offer this as an explanation of the passage in will. For in any case nothing can anywhere be really explained by a faculty. And if in this case the faculty is offered merely as the compendious statement of a law, it is still objectionable because probably it does not answer to the facts. It is either contrary to the facts, or else idle, or else at least to myself it remains unintelligible.[2] And any

[1] I assume here that redintegration cannot legitimately be reduced to partial fusion. I should certainly myself not agree to speak of the fusion of an idea with a disposition.

[2] It is contrary to fact that the tendency of an idea to realise itself depends on pleasure or pain, and contrary again that it depends on my attention to the idea. The assertion again that in volition the idea must be 'apperceived' may perhaps be admitted if 'apperception' is used in a very wide sense, but such an assertion is useless if offered as an explanation of will. For whether in fact an apperceived idea realises itself or not must depend in each case on *how* the idea is apperceived. If it is apperceived theoretically, that so far tends to prevent the realisation of the idea in fact. But as soon as you inquire about the nature of this *how* and this difference, you are thrown back on the machinery which we have described in the text. Into that which Prof. Wundt calls "apperception" I am unable to enter. The limited time at my disposal

suggestion that in will sometimes there is no idea, or no idea which realises itself, has been disposed of long ago in preceding discussions.

We may thus conclude that will is a psychical process certainly not original or ultimate or self-explanatory. It is everywhere a result from that which by itself is not volition. The passage of an idea into existence, we found, is the essence of will; and that passage, we have now seen, depends on machinery. Thus in psychology the conditions of will come before will itself, and, at least in psychology, these conditions are in every sense more ultimate than their consequence. You may perhaps insist that the tendency of an idea to realise itself after all is original, and you may add that in this tendency you find the real essence of volition. But how and why one idea realises itself in fact while another idea fails—this is the question, I submit, which we are called on to answer. And if the answer to this question falls outside of what you offer as the essence of will, your view, I must conclude, is certainly mistaken or at best defective. With regard to external will that doctrine which fifty years ago was advocated by Lotze[1] has remained, we may say, in principle unshaken and unanswered. And a like conclusion holds also in the case of internal volition. We have seen that in the main this also depends on dispositions and on redintegration, and thus results from machinery which pre-exists and is itself independent of will. There was a partial exception, we agreed, in some cases where the idea reinforces an element which is given in outer or in inner perception. And the exact nature of such cases we were obliged to leave doubtful. But we certainly in these cases should be wrong to assume that the idea works apart from a pre-existing disposition to the result.[2] In any case Fusion depends on the presence of an idea together with a given element which possesses in part the same character. And I do not see that such a fact, even if it had to remain unexplained, would support the doctrine that will is independent and original.

would hardly justify an attempt on my part to ascertain that exact meaning which for so many years Prof. Wundt has been endeavouring to expound or perhaps to discover.

[1] In his *Medicinische Psychologie*, 1852.

[2] To some extent these cases can be reduced to the support and liberation of a disposition previously held in check. And the idea itself, we must remember, may represent a disposition. I do not however (I must repeat) accept such explanations as quite adequate.

I may now proceed to touch very briefly on the development of will, but must first insist further on its connexion with pleasure and pain. I have declined to include either of these in the definition of will, but on the other hand I admit the importance of both. If I were writing a psychological treatise and not a mere defence of a special definition, I should have to lay stress on pleasure and perhaps a still greater stress upon pain. Apart from their influence usually, we may say, an idea fails to carry itself out. It is either banished from the mind or is at least held in check. The unpleasantness of want suggests, and by persisting maintains, the idea of relief. And, in the absence of want, a suggested change is emphasised and supported by felt pleasure, while on the other side felt pain or uneasiness tends to bring about change.[1] And when we consider the origin and growth of dispositions and habits, the selective agency of pain appears as a prominent factor. I am ready to agree that without pain and pleasure the will in fact does not originate, and that without pain and pleasure, to speak in general and in the main, it does not now exist. But on the other hand while I find actions which apart from theory no one would deny to be volitions, but which, so far as I see, do not issue from pain or from pleasure, I cannot admit pain and pleasure into the essence of will. I cannot in these cases find felt pleasure in the idea of the change, or felt pain in the existence which opposes the idea. And further I must insist once more that in pleasure and pain you have not an explanation of the passage of the idea to its reality. They are a means of selection among various ways of bridging the interspace, but I could not possibly admit that either itself serves as a bridge. The bridge in short remains external to them as it is external to the sundered idea. Thus, if pleasure and pain always were present in will and contributed always to its existence, they could be placed in its definition as at most a constant accessory in fact to its main essence. But, since the facts are otherwise, I have no choice but to exclude them wholly. If I am to ignore or to override apparent exceptions to their presence, I can do this only on the strength of a necessary principle. But I have here looked in vain for any principle or for any necessity.

From this I must pass to consider an objection based on the development of will. "Your account," I may be told, "makes will rest upon dispositions. But dispositions in fact

[1] On these points I have enlarged in MIND, O.S., No. 49.

are made by and rest upon will. You have therefore turned in a circle and have explained will by itself." An objection of this kind clearly opens a wide field for discussion. But we may perhaps deal with it sufficiently in a limited space if we keep in mind throughout some general considerations.

(i.) It is not permitted in psychology to confuse the questions of origin and of essence. You cannot assert that a psychical fact now possesses a certain aspect, because you judge that at its origin this aspect was present and was even necessary. It is of course legitimate to argue that this aspect has not disappeared, if, that is, you are prepared to state the reason upon which your argument rests. But no man, who believes from observation that in some cases the aspect is absent, can accept your conclusion unless your reasoning in short is conclusive. And the general disposition to believe that what has been is, or that what is usually is always, cannot seriously be offered as a conclusive argument. Now in the present case, though it may well be due to my limited knowledge of the subject, I do not know of any attempt to offer a serious argument. If there is a conclusive reason why pain and pleasure cannot in some cases now be absent in fact from volition, I have not seen so much as an attempt to offer that reason. But I am too familiar with the argument that apart from pain and pleasure there is *never* volition, because the presence of these is *always* implied in will.

(ii.) It is indefensible, we have seen, to confound origin with essence, and there is a further confusion under this head which should be banished from psychology. Let us suppose that in the history of the animal kingdom, or even in the history of the human race, certain dispositions have arisen as the result of pleasure and pain or again as the result even of volition. And let us suppose that you are in a position to establish this origin. But to advance from this basis to an assertion now about the human individual, and to urge that in him these dispositions are to be taken as resulting from will, although you cannot maintain that they have arisen from *his* will,—surely no leap of this kind is allowed in psychology. My will, whatever else I may inherit, is certainly my own, and the will of another that comes to me as a transmitted disposition is most emphatically not a volition of mine. And it is illegitimate to assume that, because a thing has happened in the history of the race, the same thing must repeat itself in the same way in the individual's development.

(iii.) And on another point the reader must allow me to

insist once more on the difference between assumption and proof. Suppose that you have shown (which I am sure you cannot show) that in every case dispositions are the result of pain and pleasure—you cannot, starting from this, affirm that dispositions originate in will, except on the strength of a further logical step. And in the presence of a denial to attempt that step by bare assumption is not permissible. Now I am forced to deny that the working of pleasure and pain is always volitional. When on the presence of a stimulus a reaction takes place, and when that reaction is maintained and intensified because it is pleasant, and in consequence tends now by association to be connected with the stimulus—this to me so far is not in the proper sense volitional. And when at the same level pain prevents the formation of some association, either through a counter-habit or simply by the removal of the painful—to speak of merely so much as being will, I must call indefensible. The doctrine that pleasure and pain imply, or even in all cases coincide with, conation or desire, at least in the sense of a desire or a conation of my self, we had to reject as contrary to irrefragable facts. And I must repeat even once again that the proof, if such a proof were possible, that dispositions originate through pleasure and pain, is not, taken by itself, a proof that they result from will. I am not of course speaking of proofs which seem to consist in mere verbal definition.

Having taken such a position I consider that in the main I am not called on to discuss further the argument from development. But for the sake of clearness I will try briefly to pursue this point further. There is an attempt, as I understand it, to show that will has no origin beyond itself, and that it does not contain and rest on passages which are given to it and which come before it in time. And in answer to the obvious objection that will depends upon given dispositions, an endeavour is made to show that dispositions, if you only go back far enough, themselves are a result which comes from will. Now if will is defined as we have defined it, such a thesis seems hardly to be arguable. And if will is identified with the working of pleasure and pain, the reader may now recall that we have rejected that assumption as contrary to fact. And we found again that, even if it were true that all dispositions are formed under the influence of pleasure and pain, it would hardly follow from this that pain and pleasure have made and produced them. You cannot, in short, to such an extent select and develop your means that you can maintain in the end that no means are presupposed.

There is, it seems to me, but one sense in which will could be really "autogenous," and in which, as will, it would depend on nothing prior to itself. If you take your will to be a man who from the first possesses a certain character, and if you suppose that your development consists in the willed selection by this man of that material which suits with his nature, such a process, I agree, might perhaps be called the 'autogeny' of your will. At any rate your nature, so far as acquired, would have been acquired by your will, and certainly that result would have come from your volition. But no such doctrine, I presume, could be even so much as discussed in psychology. On the other hand, apart from an inadmissible view of this kind, I see no sense in which the will can be really "autogenous".[1]

If however within psychology we seek for a will which is before dispositions, it may repay us to see for ourselves how far a consistent view is possible. We must begin here by enlarging will so as to include the results which in the widest sense are due to pain and pleasure. And we must go on to suppose a being which in its structure has no tendency to any special ways of reaction. From the stimulus of sensation, without regard to the sensation's quality, are to come diverse reactions which vary fortuitously according to the conditions of the moment. Or we may say that these reactions come only when pain and pleasure are added to the stimulus. This connexion of pain and pleasure with the stimulus is itself fortuitous, or else it itself must depend on an original disposition. And if diverse kinds of movement, such as contraction and expansion, follow specially from pain and pleasure, that would evidently once more presuppose a disposition. But, however the variations first arise, they are in some way supported or banished by pleasure and pain. And thus, by a natural selection which is also psychical, certain reactions are favoured and are developed into dispositions and habits.

How far we here have dispensed wholly with dispositions the reader must judge. But when we ask if such an account holds of the development of a human individual, the answer, I presume, must be a decided negative. Even if you add hypotheses with regard to his intra-uterine life, you cannot

[1] I am far from denying that what is found to be true and beautiful and good is in the end so found because it is felt to answer the needs and express the character of the self. But I hardly think that psychology can concern itself even with this. And it would not lead to the conclusion that will is prior to psychical dispositions, or indeed is anything itself but a psychical result.

maintain that the individual to so great an extent is himself the immediate result of conditions and of fortunate survival. And, at least in human psychology, we surely in each case must begin with the individual. If on the other hand we go backwards in the development of our race and of the animal kingdom, we are met at a certain point by difficulties of a further kind. Let us suppose that at a certain point biology is willing to accept our being that has no special structural tendencies, yet at this point we perhaps have gone quite beyond psychology. How much in its psychical aspect can we say about a being such as this? If at such a supposed level it possesses any consciousness of its own, how far does that consciousness contain and depend upon pleasure and pain? I should have thought myself that, at least in the present state of our knowledge, it was not possible even to assert the existence of either pleasure or pain at the beginnings (wherever we place them) of psychical life. That all conscious life has its suffering and its enjoyment, we are prone to believe. We have some reason to think this, and to hope for a greater knowledge in the future. But on the other side to draw a necessary conclusion on this point seems certainly not warranted. And you cannot argue first that the will was such at the beginning because it is such now, and then, in the second place, when a man denies that the will really is so now, reply that it must be so now because it was such at the beginning. Further I may repeat that, even if the will at the beginning had really possessed a certain character, you cannot assume that in every respect this character has been preserved unchanged.

The effort to deny that will depends upon given dispositions, and the attempt to carry these dispositions back to a point where they originate in will must end in failure. The will as an individual, who for private reasons or for no reason breaks out into definite action, seems hardly admissible. And again there is a wrong identification of will with the influence of pain and pleasure. There is a false assumption that such an influence, if original, could not later be dispensed with. And lastly by retiring backward in search of an uncontaminated beginning, you are threatened at a certain point by a formidable dilemma. You will reach a stage where there still are inherited dispositions, but where these dispositions now appear to have become merely physical.[1] And here, without finding what you seek, you will have been

[1] Merely physical, that is, not absolutely, but from the point of view of any special science.

carried beyond psychology. Or on the other hand you will be forced to carry over into biology psychological doctrines which within psychology you cannot establish or justify.

"But no," I shall be answered, "you do not understand the logic of our argument. We take as a fact the actual formation of dispositions in accordance with our doctrine, and the fact therefore depends upon no preconception. For in our actual experience we can observe the production of habits. Dispositions are made, and we ourselves see them made, through the influence of pleasure and pain. And hence we are able to affirm 'This is how they are made,' and we can therefore deny any other origin as unknown or rather as impossible". Before I consider this denial, there are several points which it is desirable to recall. In the first place, unless a disposition has been made by my will, it is, I insist, external to that will in whatever way it has been made. The argument therefore must mean that in my own individual history I have made without exception all my dispositions on one and the same principle. And, if the argument begins to hesitate at this point, it has failed. And I may once more remind the reader that, where variations are selected under pleasure and pain, the selected variations do not cease to be external to these feelings. And at any rate in no case can all such selection be rightly called volitional. Whether in our experience no associations are formed in fact except under the influence of pain and pleasure seems to me a question on which, to say the least, some doubt is possible. For myself, while I here will not go beyond doubt, I certainly cannot accept the above assumption as true. I do not see how to deny, that is, that an association may arise from a mere emphasised or repeated conjunction and without the influence of pain or pleasure.

But it is time we turned to consider the negative side of the above argument. We know, it is contended, how in our experience dispositions are formed, and we therefore may exclude any other mode of origin as impossible. But such an exclusion, I reply, if it is to be logical, must rest upon thorough knowledge. The excluded must be meaningless, or it must be self-contradictory, or it must be in plain collision with something positive which is itself clearly known.[1] Now can we say that the formation of dispositions within our own experience is known clearly? Is the influence of pain and pleasure a thing which we can call really understood? I do not myself see how any one can maintain that this is

[1] I do not here ask how these aspects are connected.

actually the case. How then can the formation of dispositions apart from this influence be taken to contradict our alleged fact of experience? To assert that no physical cause can produce anything like a disposition, and to say the same of any psychical cause other than that which is alleged, seems at least to me little better than an unwarranted and downright assumption. And thus the negative argument has only to be examined to be dismissed as untenable.

If you bring in metaphysics this result, it is possible, might be altered. You might contend that the minimum of reality in the end involves pain and pleasure and involves what you call will. And you might go on to argue that to suppose the contrary even in a special science is not permissible. But, without attempting here to enter into your metaphysics, I must insist that to intrude such speculations into the sciences is not permissible. If a thesis is such that it cannot be justified on psychological grounds, that thesis, however admirable elsewhere, has no place within psychology.

I must conclude then that, even if action under pleasure and pain is wrongly identified with will, we cannot, however far we go back, get rid of external connexions. We must suppose that special dispositions everywhere precede and are the foundation of will. And, even if by retracing the history of the race you could free yourself at some point from given dispositions, yet, when you come to the individual, the difficulty returns. For if the will of the individual presupposes dispositions which by him are unwilled, his will originates in that which to it is external. And even if the origin of the individual will were in accordance with your doctrine, you could make no logical conclusion from the origin to the essence. It is bad psychology, it is no better than prejudice, to assume that a thing must remain all that it was. The fact is that the working of pleasure and pain is not all volitional, and, again, the fact is that some volitions do not involve any such working. And no mere argument from origin, even if it were well-grounded, can alter these facts. Hence pleasure and pain, however influential in general they may be, cannot be given a place in the definition of will.

With this conclusion I may perhaps bring these articles to an end. They have covered, I fear, so much ground as to unfit them each for a separate appearance. On the other hand they have neglected some parts of their subject, while what they have discussed has been treated too unsystematically. But they may serve, I hope, as some defence for that definition which they advocate; and, if they lead the reader

once more to examine doctrines too lightly maintained, they will have satisfied at least the expectation of the writer.[1]

[1] I had hoped to have been able long before this to discuss the doctrine of will which has been put forward by Prof. Royce in his interesting and important work, *The World and the Individual*. I find to my regret that I can do no more than indicate very briefly the general attitude which, at least in psychology, I am forced to take with regard to it. (i.) I could not agree that in psychology everything, which is felt as the satisfaction of my nature, can be taken as the realisation of an idea or as willed. (ii.) I must again dissent from the view that an idea is in itself so far the realisation of a purpose or will. This is the case, I should say, only where there has been a will to have that idea, and in this case an idea of the idea must have preceded. (iii.) I cannot make our intellectual and æsthetic self-realisation subordinate to practice except in a sense and within limits far narrower than those assigned by Prof. Royce. (iv.) I cannot agree that in cognition the object is in the end selected by an idea. On the contrary I think that the idea is itself in the end 'selected' by something not an idea.

Generally I agree that the real is what satisfies, and that no other definition of reality in the end is so ultimate as this. But in psychology I certainly cannot say that what satisfies is or has been willed. And even outside psychology I cannot take reality as being merely, or even in the first place, a satisfied will. I am unable, that is, to regard will, either in myself or in the Universe, as being more than one partial aspect of the whole. But I must hope to discuss hereafter some of the doctrines contained in Prof. Royce's instructive work.

II.—THE RELATIONS OF ETHICS TO METAPHYSICS.

By W. H. Fairbrother.

There is a proverbial jibe at Philosophy as fruitless and unprogressive on the ground that it always asks the same questions and always patiently submits to receiving the same (contradictory) replies. Proverbs are however two-edged tools, and the truth undoubtedly contained in this familiar reproach might easily be shown to be very much to the credit of Philosophy, in a moral, as well as an intellectual, reference. In any case it may serve to justify the introduction of the question discussed in this paper in the form given to it by Plato:—

> This, my dear Glaucon, is the moment when everything is at stake with a man; and for this reason, above all others, it is the duty of each of us diligently to investigate and study, to the neglect of every other subject, that science which may haply enable a man to learn and discover, who will render him so instructed as to be able to discriminate between a good and an evil life, and according to his means to choose, always and everywhere, that better life, by carefully calculating the influences which the things just mentioned, in combination or in separation, have upon real excellence of life; and who will teach him to understand what evil or good is wrought by beauty tempered with poverty or wealth, and how the result is affected by the state of soul which enters into the combination; and what is the consequence of blending together such ingredients as high or humble birth, private or public life, bodily strength or weakness, readiness or slowness of apprehension, and everything else of the kind, whether naturally belonging to the soul or accidentally acquired by it; so as to be able to form a judgment from all these data combined, and, with an eye steadily fixed on the nature of the soul, to choose between the good and the evil life, giving the name of evil to the life which will draw the soul into becoming more unjust, and the name of good to the life which will lead it to become more just, and bidding farewell to every other consideration. For we have seen that in life and in death it is best to choose thus.[1]

The immediate reference of these few lines from the tale of Er, the son of Armenius, is to that critical moment when the souls who are to commence their new life on earth are

[1] Plato, *Rep.*, 618 B, Davies and Vaughan's translation.

about to choose their lots. The number of lots 'far outnumbered the souls that were present' and it was indeed all-important that the freedom of choice given should be exercised wisely. But the real meaning of the passage has a much wider reference. In it Plato sums up his whole teaching as to the nature of Morality, its relation to life, and the method by which our knowledge of it is to be attained. To him the one duty of the citizen as an intelligent being is, by 'diligent investigation,' to reach that comprehension of the true manner of life which alone could render possible the carrying it out in practice. No study so important, or so indispensable, as this. None which could rightly claim from us such unwearied effort and such single-eyed devotion to truth, whithersoever she might lead. With this feeling of the absorbing importance of such knowledge went the conviction that its attainment was possible. Influenced possibly by current belief in Athens, certainly by the teaching of his master, Socrates, Plato held that the 'manner in which a man ought to live' is in itself knowable and admits of intelligible exposition to others. From this it follows practically that men can be 'trained' in it until they become able to exercise a wise self-control for themselves; and even if many men are incapable of attaining such knowledge for themselves they can and should be guided by those who have that capacity. "Every one should be governed by a wise and divine power which ought, if possible, to be seated in the man's own heart,"[1] but, in default, there is the alternative "to impose it from without". The Philosopher kings discharge that function in the body politic which his Reason ought to discharge in the individual man.

Further, the attainment of this manner of life, in other words, of Excellence, or Virtue, is obviously only possible in the proper discharge of those functions which we are by nature fitted to perform. Introspective analysis is the manifest method of investigation to pursue in the search for such functions. It may be assumed—no Greek could question this Platonic assumption—that man is, 'by nature,' a social animal, a citizen. The Ethical question thus takes the shape 'What is fitting for a citizen to do?' To this question the only trustworthy answer is that which is deduced from the answer to the prior question 'What is a citizen?' He is manifestly a part of a complex whole, the well-being of which, as of the parts themselves, depends solely upon the due discharge, by each part, of its proper function as

[1] *Rep.*, 590 D.

such. He cannot 'live unto himself,' for this in every, except a purely physical, sense would be death, not life. He must live 'in relation to' his fellows, and these relations constitute the definite Moral Laws in accordance with which his life should be regulated. To think otherwise, to attempt, *e.g.*, to portray a life in which some individual citizen has all conceivable good things, whether appropriate to him or not, is as absurd as to lavish all the colours of the rainbow upon the eye in a marble statue. Such efforts are self-destructive, for true life, with its result, true happiness, is only realisable by each becoming the 'best possible workman at his own vocation'. Perfect morality is attained when the simple rule 'Let each do that which is his to do' is completely carried out.

In this way we are necessarily taken back from theories of 'what ought to be' to the scientific investigation of 'that which is'. Our Ethics must be deduced from, and representative of, the truth of things. It is no use asking if we ought, or ought not, to pursue power, wealth, etc., until we have, by 'diligent study,' discovered what 'influence these ingredients have' upon life itself. Such investigation reveals to us everywhere a Cosmos, an ordered whole, in the Society as in the Individual, in the Universe as in the Society. True reality (as revealed not by Sense but by Science) is a spiritual whole of interrelated parts. Man only becomes his true self in so far as he is, on the one side, such a microcosm in himself, and, on the other, discharges those functions which are binding upon him as part of the larger cosmos to which he is related. His highest excellence is to know reality and live according to it. In so doing he enters into the mind of God, the Creator, and becomes like unto Him. For only "by ever holding fast the upward road of right conduct guided by understanding" [1] can he hope to reach that ideal of "likeness to God" [2] in which his soul can find complete rest.

Virtue is thus seen to be the truth of things and brings with it necessarily life and happiness. Conversely, vice, as inconsistent with the laws of Nature, necessarily works out its own punishment. The man who sins is 'unavoidably doomed' to suffer. The despot, the extreme type of wickedness, loses the power to live, in any human sense of the term, altogether; he parts with all freedom of action and becomes a veritable 'slave' to every momentary impulse, however degrading, unsatisfying, or maddening.

The questions thus raised by Plato, and the answers given,

[1] *Rep.*, 621 C. [2] *Theat.*, 176 B; *Rep.*, 613 A.

have been subject of controversy ever since. Nor is the hostility less uncompromising as time goes on. The representatives of the opposite schools are as antithetical in their antagonism to-day as were Plato and the 'Sophist' twenty-three centuries ago. The Platonic theory may be summed up in two propositions, (1) Ethical doctrine must be deduced or derived directly from the results of metaphysical investigation; (2) This deduction is possible; in other words, a science of human nature, in its environment, is so far attainable that we can lay down a theory of conduct which men 'ought' to try to realise in daily life. Both propositions are stoutly affirmed, both with equal emphasis denied, to-day. On the one hand, writers such as Graham (in his *Creed of Science*), Watson[1] and T. H. Green remind us, as if it were a mere truism, that until "some definite conclusion in regard to the relation between man and nature is arrived at, no theory of Ethics is other than wasted labour".[2] On the other, Leslie Stephen (*e.g.*) assures us not only that the fulfilment of this condition is impossible, but that, luckily, the attempt to do so is both delusive and unnecessary. Ethics possesses at least one characteristic in common with the physical sciences, *viz.*, that of giving us "knowledge which, within its own sphere, is entirely independent of the metaphysician's theories—the region of Science, ethical as well as other, is a region in which all metaphysical tenets are indifferent".[3] This last writer goes even farther and asserts, not only that Ethical Science is 'indifferent' to metaphysical conclusions, but also that the two kinds of knowledge cannot be brought into connexion. "By the metaphysical method," he declares, "you cannot even approach the relevant questions of Ethics. . . . In the metaphysical region you may come across ultimate canons of truth, but by no conceivable ingenuity upon principles of action."[4] Finally, Prof. Sidgwick, *more suo*, agreeing and disagreeing with both views, comforts us by saying, "there are certain absolute practical principles, the truth of which, when they are explicitly stated, is manifest; but they are of too abstract a nature to enable us to ascertain what we ought to do in any particular case; particular duties have still to be determined by some other method".[5] This verdict is apparently put forward as an effort towards reconciliation, but it would seem rather to accentuate the point at issue.

[1] *Cf. Outl. of Phil.*, p. 189. "To act morally is to determine oneself in accordance with the true nature of existence."

[2] *Prol. to Ethics*, p. 54.

[3] *Sc. of Ethics*, p. 3.

[4] *Ibid.*, p. 450.

[5] *Meth. of Ethics*, p. 378.

It is important that we keep quite clearly in mind what this point at issue is. We are not concerned with the possibility of a Metaphysic, still less with the truth or the cogency of any particular metaphysical system. We are dealing solely with the relation, positive or negative, between a thinker's ethical doctrine and his metaphysical belief. Some metaphysical position—explicit or implicit—a thinker must have. The choice lies solely between a good metaphysic and one not so good—between a carefully thought out body of doctrine on the one hand, and a more or less casual number of assumptions on the other. We may rail at Metaphysic as an "unearthly ballet of bloodless categories,"[1] or regard it as "a barren region haunted by shadowy chimeras, mere spectres, which have not life enough in them even to be wrong, nonentities veiled under dexterously woven masses of verbiage";[2] but some working assumptions as to the ultimate truth of things we can as little do without as we can jump off our own shadow. Is it, or is it not, then, possible to separate these two departments of thought, so that progress or change in the one may take place without effect upon the other? The question may be asked in two ways—(1) Are the ethical doctrines taught by the more important writers in this subject derived from, or traceable to, their respective metaphysical beliefs? or (2), *in abstracto*, is the subject matter of Moral Science of such a kind that it is necessarily affected by our belief as to the ultimate nature of man and the universe?

The philosopher is tempted, naturally, to attack the question in the latter form, nor is it disputable that, should success follow the effort, the result must be more finally satisfactory than any mere historical review, however accurate and complete, can attain to. Unfortunately, it is difficult to treat the matter in this way without *petitio principii* and, in any case, it is, perhaps, the more hopeful course to stick closely to the facts of philosophical history, at least in the first instance, rather than to theorise entirely in the abstract.

A review, in detail, of the doctrines of even the more important ethical writers opens up a prospect, the length of which may cause a shudder; but, fortunately, it is only necessary, for the present purpose, to deal with one or two typical expositors. By confining ourselves, further, to the best known of these, we avoid the necessity of any detailed statement of their respective views and are able to fix our

[1] Bradley, *Prin. of Log.*, p. 533. [2] L. Stephen, *Sc. of Eth.*, p. 447.

attention solely upon certain relevant features. Such selection must be, necessarily, more or less arbitrary, but that does not matter provided it be representative.

In the first place, then, it is obvious that a great body of thinkers (of whom Plato in the ancient world, Green in modern times, Prof. Watson among the present generation, are typical) do, as a fact, base their moral teaching directly and, as far as possible, deductively upon the results of their metaphysical investigations. It is needless to labour this point. Further, it will be admitted that to a certain extent (how far exactly is matter of controversy) such deduction carries us past the domain of abstract principle into that of a definite moral code, applicable to the main problems of civilised, or other social, life. It may, or may not, be true that (in Prof. Sidgwick's words [1]) "while there is much instructive description and discussion of the general attitude which a moral man should adopt in dealing with practical problems, there is no cogently reasoned solution of any such problems, proceeding from unambiguous ethical premises to definite practical conclusions," but it is at least indisputable that with these thinkers ethical doctrine, in both principle and concrete detail, stands or falls with their conclusions as to the 'truth of things'.

On the other hand it is equally obvious that many writers, in popular estimate, reach their ethical results by other roads than the metaphysical. Kant, Spencer, Mill, seem to possess at least this negative characteristic in common, and the investigations of the English Moralists of the eighteenth century appear equally free from the taint of Metaphysics. It will be better to consider the former individually, but the latter, for the present reference, may be taken collectively. Of them, in the main, the popular estimate may be admitted to hold good, but it can hardly be accepted, without important reservations, in regard to the former.

First *Kant*. Nothing could, at first sight, seem clearer than the separation of the Kantian ethics from the Kantian metaphysics. The one takes as fundamental postulate certain things the existence of which the other asserts stoutly to be unknowable. A deeper investigation, however, seems to show that this independence is merely superficial; the moral teaching is really an integral portion of a philosophical whole, each part of which is indispensable to the other. Kant's *Lehre* may be stated shortly as follows:—

An examination of the process of human knowledge reveals

[1] Mind, April, 1884.

to us at once its necessary limit and gives us the conception of a higher systematic unity of which scientific cognition forms merely an integral part.[1] Scientific cognition consists of a certain *matter* of experience, which is received from without, but only under the conditions of self-consciousness, the laws of which prescribe the *form* under which the empirical world is presented. Hence the limit of such knowledge is the limit of possible intuition, and the knowledge itself is conditioned throughout by the forms of the Understanding. It gives us merely a 'contingent aggregate'.[2]

Reason however demands not a contingent aggregate but a connected organic whole. The Categories cannot give us this. Their highest conception is that of natural causation in the world of sense experience—phenomena—and we require a causality which is, not conditioned, but unconditioned. The unity and the causality appearing in cognition are but the shadows of a higher unity and an unconditioned causality which can only come from Reason and which form Reason's necessary law. Have we any evidence of the actual existence of such a causality?

Yes. We have given in consciousness a fact of such a nature that its content is not limited by the conditions of intuition, and is inexplicable except through the supposition of Freedom, *viz.*, the Moral Law, or Duty, which is pure form and unconditioned, and can, therefore, be given only by Reason to Reason.

This 'freedom' is no arbitrary freedom; it is a definite kind of causality, working by Law. Its law is the autonomy of the will—a free will and a will subject to moral law are one and the same.

Now man belongs both to this noumenal world and to the phenomenal world. Hence arises Moral Obligation. The law of his Reason—Freedom—is a law of that real world which is the very foundation of that phenomenal world in which he lives, and is therefore operative in it and binding upon him. In the domain of the Practical Reason, then, we come into contact with noumenal reality and find that causality, that systematic unity, which the Categories of the Understanding cannot give us—find both ourselves, and God.

These ideas—God, Freedom, Immortality—do not admit of either demonstration or comprehension (otherwise they would be necessarily conditioned), but on the other hand

[1] This case for the 'Unity' of Kant is practically only a summary of the lengthy argument of Prof. Adamson in his *Philosophy of Kant*.

[2] *Cf.* Adamson, p. 75.

they are not *arbitrary* assumptions. They are *necessary* assumptions in the domain of Reason itself, and could only be rejected on the (obviously untenable) ground that they contradict the results of the speculative employment of the same faculty. Nor again is there any radical difference between pure practical and pure speculative Reason. They are both equally Reason and the same Reason, which as self-determining supplies us with notions of Freedom, as determined with notions of Nature, the Categories of the Understanding.[1]

If the above summary be correct the complete interdependence of the Kantian Ethics and the Kantian Metaphysics is obvious. On the other hand it can hardly be denied that he is wanting in the successful deduction, from these fundamental conceptions, of that detailed code of action which Prof. Sidgwick holds it is the sole function of Ethics to give us. In this respect Mr. Herbert Spencer and J. S. Mill, while teaching an ethical doctrine equally due to their respective metaphysical positions, are much less open to criticism.

Herbert Spencer. Mr. Spencer is sometimes spoken of as an Agnostic, a charge to which his use of the word 'unknowable' lends an occasional plausibility. But this unknowability refers solely to the conception, in its completeness, of the Ultimate First Cause of things. Omniscience, he holds, is beyond our reach, but scientific cognition of phenomena, so complete that it reduces the apparently bewildering chaos of experiences to an intelligible principle, is not beyond our analytic capacity. Reality, in all its fulness of detail, is due to the fact that

> A Power of which the nature remains for ever inconceivable, and to which no limits in Time or Space can be imagined, works in us certain effects. . . . Analysis reduces these several kinds of effect to one kind of effect; and these several kinds of uniformity to one kind of uniformity. And the highest achievement of Science is the interpretation of all orders of phenomena, as differently conditioned manifestations of this one kind of effect, under differently conditioned modes of this one kind of uniformity.[2]

Ethical phenomena form one portion of the sum total of phenomena to be so explained. The direct dependence of such phenomena upon the nature of Reality, and the unsatisfactoriness of any attempt to arrive at Moral Laws, except by deduction from metaphysical truth, are stated in the clearest language by Mr. Spencer:—

[1] *Cf.* Adamson, p. 126. [2] *First Principles*, p. 557.

> The view for which I contend is, that Morality properly so called—the Science of right conduct—has for its object to determine *how* and *why* certain modes of conduct are detrimental and certain other modes beneficial. These good and bad results cannot be accidental, but must be necessary consequences of the constitution of things: and I conceive it to be the business of Moral Science to deduce, from the laws of life and the conditions of existence, what kinds of action necessarily tend to produce happiness, and what kinds to produce unhappiness. Having done this, its deductions are to be recognised as laws of conduct.[1]

In other words, the ancient doctrine that Morality is in the nature of things—that 'morally right' is identical with that which is 'naturally fitting'—forms the backbone of Mr. Spencer's teaching. For him, as for Plato, the moral ideal will be attained when the moral conduct has become the natural conduct, and ethical guidance must be sought in the laws which analysis of man's place in nature reveals to us. The conception of nature, however, in the mind of the modern thinker, has lost the simplicity which it possessed in early philosophy. Nature is still a cosmos, an interrelated whole; perfection is still conceived as an equilibrium produced by proper performance of function by each part, but the equilibrium is no longer a definite state which, once reached, is to last for ever, and in which any change is, *ipso facto*, for the worse. The equilibrium is a moving one. Progress consists not only in the tendency towards a state of harmonious balance of forces, but also in the movement towards higher stages of these successive 'rhythmic' wholes. To the Greek thinker human nature, or at least the only kind of human nature he held it worth while to think about, was a fairly complete thing which required to take (so to speak) but a short step in the direction of more thoughtful self-control in order to reach that highest level we call the complete or perfect life. To Mr. Spencer life at any stage is but a passing phase in an evolution whose origin is lost in an unfathomable past and the final perfection of which is hidden in an unknowable future. The difference for ethical inquiry, thus arising, is fundamental. The modern thinker still asks the old question, 'What ought man to do?' but the import of this question has materially changed. Man is no longer merely a fellow-citizen, like unto ourselves, with wants, impulses, reasoning powers and ideals, identical with our own, and definitely intelligible. He comes clothed with an involved history which must be investigated before ethical problems can be even stated, and pointing to a far distant future to wait for before these problems can be solved. He is a link in a chain, the whole of which must, in some sense, be brought

[1] *Data of Ethics*, ch. 4.

into our field of view before we can hope to understand any part of it. We have to examine what man has been doing in the past, and not only what *he* has been doing but what the rest of nature has been doing as well. "Fully to understand human conduct as a whole, we must study it as part of that larger whole constituted by the conduct of animate beings in general,"[1] which can only itself be understood by examining it in the successive stages of its development. The *history* of man becomes all-important. This history is inextricably interwoven with that of nature as a whole, and cannot be fully understood until the evolution is complete.

The ethical problem has thus become wider, and infinitely more difficult, but is not so hopeless as this statement of it would seem to imply. The history to be investigated is an intelligible history. It is that of a continuous evolution exhibiting unity of plan and revealing, throughout the successive stages, the fundamental laws of its development. One great law, more especially, manifests itself throughout the, at first sight, bewildering complexity of these changes, and gives us an unfailing clue through the labyrinth of the world's history. This law may be stated as follows: "Nature has progressed, and is progressing, from an indefinite incoherent homogeneity to a definite coherent heterogeneity".[2] This law is universal and all-pervading. It reveals itself in both the matter of the universe and in the motions of that matter. It is as obvious in the interrelations of conduct as it is in the constitution of physical reality. With it as a clue we are enabled to see clearly the past, to understand the present, to anticipate the future.

We can now see the inadequacy of the Greek conception of the ethical problem. Man is dynamic, not static. Morality is itself a progress which is essentially related to that of the rest of existence. There is "an entire correspondence between moral evolution and evolution as physically defined".[3] The two advance together and mutually imply one another. It would be impossible for the 'moral' man, *i.e.*, the man in whom the moving equilibrium is perfect, to exist in an incongruous environment. "The production of the highest type of man can go on only *pari passu* with the production of the highest type of society,"[4] which is, again, impossible apart from the existence of fitting surroundings. Complete moral evolution involves complete physical evolution. The perfect man implies not only a perfect *society*, but also an ideal *world*.

[1] *Data of Eth.*, p. 7.
[2] *Ibid.*, p. 65.
[3] *Ibid.*, p. 74.
[4] *Ibid.*, p. 73.

On the other hand it is obvious that this ideal whole contains many elements which do not properly fall under the Science of Ethics. Moral Science deals only with conduct, *i.e.*, with the adjustment of acts to ends, and must limit itself to a comparatively small portion of even this field. The part of conduct it investigates is that alone upon which ethical judgments are passed. It is true that the components of moral conduct are inextricably bound up with the rest of conduct, and that the latter passes into the former by small degrees and in countless ways, but it is none the less true that by far the largest portion of conduct falls outside the sphere of Ethics. It is also true, and even more important to remember, that the same conduct, *i.e.*, the same concrete act, may be sometimes moral, at other times not. Ethics, that is to say, is limited to the consideration not only of a certain *part* of conduct, but, further, to a definite *aspect* of it. "Ethics has for its subject-matter, that form which universal conduct assumes during the last stages of its evolution as displayed by the highest type of being."[1]

If, finally, the inquirer, feeling a little puzzled, if not doubtful, suggests that Ethics deals not with 'highly evolved' but with 'good' conduct, a little reflexion will show him that the two terms are equivalent. Evolution consists in the more complete adjustment of acts to ends, and the term 'good' is the term universally chosen to signify the recognition of such adjustment in all three kinds of acts—self-preserving, offspring-preserving, society-preserving.

This sketch of Mr. Spencer's doctrine, stated as far as possible in his own words, reveals clearly the fact that his theory of what 'ought to be done' rests throughout upon his analysis of 'that which exists'. How far he is successful in deducing therefrom a concrete code must remain, perhaps, a matter of opinion, but it should be noted, under this reference, that his chief aim is to show 'how and why' certain conduct is right and other conduct wrong. His Ethics, consequently, becomes inextricably interwoven with his metaphysics. The popular notion to the contrary seems to have arisen from an accident of language. Mr. Spencer is so anxious to avoid the Scylla of 'Intuitionalism' that he falls into the Charybdis of 'Utilitarianism'. Metaphor apart, influenced by the opposition (in its crudest form) of *a priori* or *a posteriori* knowledge, and rejecting the former as unreal, he deliberately adopts the language of sensationalism even when he is basing most distinctly his results upon scientific

[1] *Data of Eth.*, p. 20.

reasoning. Hence, though no condemnation of the Utilitarian test—a *feeling* of pleasure—can be clearer or more emphatic than his, he yet constantly uses Utilitarian phraseology. Strictly speaking, the opposition between the Evolutionary Hedonism of Mr. Spencer and the Utilitarianism of J. S. Mill is antithetical—the latter holds that an act is right because it gives pleasure, the former that it gives pleasure because it is right—but the verbal form in which Mr. Spencer frequently clothes his teaching hides this fundamental difference from the superficial reader.

J. S. Mill. To give, even summarily, a statement of Mill's ethical doctrine is, fortunately, needless. His *Utilitarianism* is probably the most widely known of all moral treatises; a fact due partly to the practical commonsense tone of the book, but, perhaps, even more to the beauty of the concrete ideal therein put before us.

Mill, however, is clearly conscious that the claims of even Utilitarian Morality to our allegiance must rest upon a surer basis than that of attractiveness. Having explained clearly what Utilitarianism means he proceeds to show that theoretically it admits of as cogent justification as any other system, and that its end is the only practical aim which men, as rational creatures, do or can set themselves to realise.

His method of proof is based directly and explicitly upon his general philosophical position. Rejecting, as untenable assumption, any intuitional theory of the origin of the Moral Sentiments, he maintains that rules of conduct are derived from, and can only be justified by, the facts of experience. He appeals solely to the analysis of human nature. His way of viewing human nature is, on the other hand, very different from that adopted by, *e.g.*, Plato, and is equally at variance from that of a Hedonist such as Mr. Spencer. Mill has no conception of any ἔργον τοῦ ἀνθρώπου, of anything which analysis of human faculties reveals as 'fitting' for man to perform. He makes no reference to man as part or member of any organic whole, whether cosmic or civic; still less does he accept the doctrine that the moral code should be deduced from those functions which men, as integral parts of such a whole, are intended 'by Nature' to discharge. Historical or evolutionary considerations, again, enter into his method of investigation as little as the conception of the social organism. Men are looked at, so to speak, as they stand, not regarded as links in a chain of progressive development. The present is in no sense a product of the past; at least, no attempt is made to explain the present by the past, or to discover rules for conduct by investigation into ante-

cedent social stages. That 'race experience' may, by growth and accumulation, gradually alter the physiological and psychological constitution of man in such wise as to seriously affect, if not totally account for, his attitude towards social and moral questions, is a conception entirely foreign to Mill's system of Ethics. It might almost be said, indeed, that *man* finds no place at all in this system, but only *men*. Average human beings regarded as an aggregate, and interrogated separately and individually, form the sole source from which we may obtain insight into ethical truth. We must not ask what men *ought*, normally, to do or feel towards each other as parts of a social organism, but what, examined individually one after another, they as a matter of fact *do* feel and perform. Just as, in the physical world, the proof that an object is visible or audible is obtained from the fact that men see or hear it, so in morals the only possible demonstration that an end should be desired or aimed at lies in the fact that men actually desire or aim at it.

The final result of this empirical observation of our fellow-creatures (including one's own self) is to establish three things:—

(1) That as a fact men do desire nothing but happiness.

(2) That this happiness = the general happiness, or at least includes that of some other individuals.

(3) That the term happiness is not an empty, vague abstraction, but has a definite concrete meaning, intelligible to the plain man, and practically effective upon conduct.

To enter into the detailed reasoning by which Mill seeks to establish these fundamental points would take us too far from our main subject. I will quote only one short passage, by way of illustrating and emphasising his method. The immediate reference of the extract is to point No. (1):—

> If it be psychologically true that human nature is so constituted as to desire nothing which is not either a part of happiness or a means of happiness, we can have no other proof, and we require no other, that these are the only things desirable. If so, happiness is the sole end of human action, and the promotion of it the test by which to judge of all human conduct; from whence it necessarily follows that it must be the criterion of morality, since a part is included in the whole. Now to decide whether this is really so . . . we have evidently arrived at a question of fact and experience, dependent, like all similar questions, upon evidence. It can only be determined by practised self-consciousness and self-observation, assisted by observation of others. I believe that these sources of evidence, impartially consulted, will declare that . . . to desire anything, except in proportion as the idea of it is pleasant, is a physical and metaphysical impossibility.[1]

[1] *Utilit.*, p. 58.

Historical evidence, so far, has been all in one direction, but it must be frankly admitted, on the other hand, that of the English eighteenth century Moralists, speaking broadly, the fact holds, that no metaphysical theories, no ideas as to the ultimate (or even proximate) truth of things, form the basis of their moral teaching. In this 'age of facile individualism,' as it has been called,[1] attention seems to have been concentrated solely upon the fact that men everywhere exhibit feelings of moral approval or disapproval. Upon this fact the method of introspective analysis was brought to bear in the attempt to answer two questions, (1) How many different moral sentiments do actually exist? (2) Is their origin to be sought in Feeling or in Reason? The 'Reason,' however, to which Morality was by certain thinkers attributed was conceived as a peculiar, separate, moral Faculty, obeying its own laws, not to be identified with Reason in the ordinary sense, or held liable to the difficulties connected with epistemological speculations. Even if we adopt the late Prof. Wallace's[2] kindly estimate, *viz.*, "these separate Moral Faculty theories really rest upon the belief that moral good and evil are not arbitrary or esoteric distinctions, but rest upon a common and permanent element of human nature, and that, therefore, this fundamental nature, common to all men, must be able to detect their existence," even so, this belief remains an unproven assumption, unsupported by any reasoned scientific justification. The psychological analysis may be true, as far as it goes, but its journey is so very short that it hardly seems worth while to have started at all.

Are we to say, then, that Ethics is independent of metaphysics only in so far as it is valueless even as Ethics? Such answer is temptingly easy, nor can it be denied that the review we have just finished lends considerable plausibility to it. Considered *in abstracto*, again, the argument in its favour is irresistible. Ethics is indisputably a theory of the proper conduct of life. Some theory of life is therefore necessitated. No theory of life can be based (rationally) upon anything else than an examination into the nature of man and its relation to its environment, in other words, into the nature of reality. Conversely, Sophistry destroys Ethics by simply taking away our belief in a rational, *i.e.*, coherent or intelligible, Reality.

Is there, then, nothing in the contention of that school of thought which, for the sake of simplicity, I have identified with

[1] By Selby-Bigge in his *British Moralists*, p. lx.
[2] In his Inaugural Lecture at Oxford, 7th Dec., 1882.

the names of Prof. Sidgwick and Mr. Leslie Stephen? Far from it—there is great truth in their contention but (if I may say so without offence) they have expressed it badly. The object of this paper is not to champion one side or the other, but to do something towards that useful—albeit ungrateful—task of enabling each side better to understand one another. When it is maintained that Ethics is independent of Metaphysics what is really meant is that in this year of our Lord 1903 our knowledge of Reality is not complete enough to enable us to deductively demonstrate the multifarious detail to which answers must be given, and practically acted upon, in daily life. It is a fact, undeniable except by a fanatic, that every moral *code* must contain elements which are due to the necessity of answering, somehow, questions, the final solution of which lies in a far distant future. It is also a fact that a code containing none but elements of this haphazard kind cannot maintain its hold upon us for a day. Our theory of what *ought* to be is necessarily to be brought into co-ordination with our doctrine of that which is, but the co-ordination is not yet complete. Whether we lay emphasis upon the one aspect or the other is an accident of temperament. If our interest lies in the *how* and *why*, we gaze with astonishment at men who try to aggregate together rules of life from the shallow superficialities of daily experience, without any attempt to integrate these rules into a coherent whole. If our sole desire is to possess working rules we wonder how any man can busy himself with unprofitable abstractions instead of investigating the actual facts. That this latter is the real meaning of the dislike to any metaphysical system of Ethics, the quotation of a few phrases will sufficiently show. Green, *e.g.*, is 'instructive,' but gives us "no cogently reasoned solution of definite practical problems"[1]—a "method of Ethics means any rational procedure by which we determine Right Conduct or Practice in any particular case"[2]—"currently accepted principles are wanting in clearness and precision, they do not tell us *e.g.* whether primogeniture is just, . . . yet such questions as these are those to which we naturally expect answers from the moralist. For we study Ethics for the sake of practice; and in practice we are concerned with particulars."[3] "As we assign the relations between parts of space without asking what is space in itself, may we not determine rules about men without asking what is meant *e.g.* by personal unity? . . ."[4] "My view is that the Science

[1] Sidgwick, MIND, April, 1884.
[2] Sidgwick, *Meth. of Eth.*, p. 1.
[3] *Ibid.*, p. 213.
[4] L. Stephen, *Sc. of Eth.*, p. 3.

of Ethics deals with realities; that metaphysical speculation does not help us to ascertain the relevant facts; and therefore that it has no more relation to Ethical Science than to any other branch of knowledge."[1] It would surely be nearer the truth to alter this phrase 'no more than' into 'just so much as'. Men were tried and sentenced in law courts before the sciences were sufficiently integrated to enable us to apply the truths of Forensic Medicine, but that this should be so was merely a temporary necessity. It is equally a temporary necessity that we have to lay down relations between man and man without the help which a complete understanding of personal unity would afford. We may emphasise at our pleasure (it is mainly, as I have said, an accident of temperament) either the word *Ethical* or the word *code*, but let us not convert a variation of emphasis into a difference in kind. The subject-matter of Ethics is as much an integral portion of the real world as that of any other Science. The integration of knowledge is unfortunately not yet so complete as that of the Reality we seek to know, but nothing can be gained by treating passing difficulties as insuperable obstacles. The dim perception of Reality as a coherent whole was the beginning of science—the clear vision of this whole in complete detail is the goal at which it aims. To believe otherwise is to commit intellectual suicide—to urge such belief upon others is to be guilty of treason towards humanity.

[1] L. Stephen, *Sc. of Eth.*, p. 450.

III.—KANT'S TRANSCENDENTAL IDEALISM AND EMPIRICAL REALISM (II.).

By C. M. Walsh.

The two accounts of Empirical Realism entertained by Kant being explained, an examination of their natures is in order. Now the first account of Empirical Realism turns out to be an account of something which is not Empirical Realism at all. It is an exaggerated kind of Transcendental Idealism in respect to Phenomena, supplemented by a doctrine of Transcendental Realism in respect to Things-in-themselves, between which no place is left for Empirical Realism except of the subjective representations of individual and distinct persons. For in this account Kant reduces all real sensible objects to be unreal except as states of our individual consciousnesses;[1] and he leaves over as outside realities only the unspatial and untimal things-in-themselves. It is a doctrine, too, that contradicts all common and popular views, and would probably not have been entertained by Kant himself had he not been able so readily to lapse into it from, and to escape from it into, the other kind of Empirical Realism. To illustrate this instability a single quotation will suffice. "That there can be inhabitants in the moon," says Kant, "although no man has ever sensibly perceived them, must be admitted; but it means only so much as this, that we could meet with them in the possible advance of experience; for [according to the second Postulate] real is all that which stands in a context with a sense-perception according to the laws of empirical progression. They are real, therefore, if they stand in an empirical connexion with my actual consciousness, though they are not on that account real in themselves, that is, outside this advance of experience" (iii., 348). Here the commencement is in accordance with the first account of Empirical

[1] "Das ganze Selbstbewusstsein liefert nichts, als lediglich unsere eigenen Bestimmungen," iii., 604.

Realism, and all the rest with the second. For the opening assertion is that to speak of the existence of inhabitants in the moon is *only* to say that we could meet with them if our —your or my—experience advanced so far.[1] This is an extreme overstatement. What we mean in speaking of inhabitants in the moon as existing, if we believe they exist, as Kant did,[2] is, to be sure, that we might meet with them in a possible advance of our experience; but we also mean much more. We mean that these beings *do* exist even if *we* did not, in which case they could not be connected with our non-existent experience. And we mean not merely that some corresponding things-in-themselves exist nowhere and at no time, but that objects extended in space exist there where we think of them as being, and now, although we do not, and cannot, sensibly perceive them. And this is what Kant himself affirms in the rest of the passage, where he says the inhabitants of the moon are real if they "stand in a context with a sense-perception," or "in an empirical connexion with my actual consciousness".[3] For this means that if it be true that there are inhabitants in the moon, they do actually stand in actual connexion with our existing experience—that they do exist in space and in time, although they do not exist in my space and time, and there might not even be a representation of them in my space and time—that they do, in fact, exist in connexion with an experience, which exists whether I and you and the rest of us exist to share in it or not. But if we meant *only* that things exist because we could meet them, this would mean that their empirical existence is contingent upon our meeting them,[4] and that otherwise their only existence is unempirical, being outside our experience. In this kind of so-called Empirical Realism it is evident there could be no phenomenal substances, since no phenomena or representations have permanence only in us, we ourselves not being permanent,[5] and

[1] So of past things he says on the next page: "Dass alle von undenklicher Zeit her vor meinem Dasein verflossene Begebenheiten doch nichts Anderes bedeuten, als die Möglichkeit der Verlängerung der Kette der Erfahrung, von der gegenwärtigen Wahrnehmung an aufwärts zu den Bedingungen, welche diese der Zeit nach bestimmen".

[2] Or at least in some planet, iii., 544. But *cf.* viii., 129 (*Logik*).

[3] *Cf.* also v., 482 (*Kritik der Urtheilskraft*).

[4] *Cf.* "Im Raume ist gar nichts, ausser so fern es in ihm wirklich vorgestellt wird," iii., 602 n.

[5] Kant himself distinguishes between a permanent representation and the representation of something permanent in existence, "welches also ein von allen meinen Vorstellungen unterschiedenes und äusseres Ding sein muss," iii., 30 n.

the whole first Analogy would be meaningless; and the second Analogy, as we have seen, would have meaning only as a "regulative principle of the reason," regulating our views about our experience, but not regulating (or constituting) the empirical world itself. The view, such as we entertain about experience, that inhabitants in the moon may be existing now although we do not sensibly perceive them—a view which allows of "phenomenal substances," their permanence through the whole course of nature, causation between their accidents, and their interaction through the immensity of the universe, in times and places when and where perhaps nobody on this earth ever has or will sensibly perceive them, thus existing not only in a possible but in an actual connexion with the phenomenal objects we actually experience, and so with our experience —is covered only by Kant's second account of Empirical Realism. This second account, therefore, is a necessary component in Kant's philosophical system.

But this second kind of Empirical Realism is also not Empirical Realism properly so called. The first kind failed to be Empirical Realism because it failed to be realism: it was Empirical Idealism. This kind fails to be Empirical Realism because it fails to be empirical: it is, properly speaking, Transcendental Realism. It is transcendental as much as the Transcendental Realism in respect to Things-in-themselves, which Kant professed. It differs from that Transcendental Realism only in the detail that that Realism takes the transcendental things to be wholly different from our sensible objects, and hence to be unknowable, while it takes the transcendental things to be like our sensible objects, at least in the qualities of extension in space and endurance or succession in time, and so to be subjects of intuitional and causal science. But it is transcendental, because it places the real objects of experience in a single experience which is not yours nor mine and hence nobody's, and because, in correspondence to our sensible objects or phenomena, individually in us, it posits what can only be *other* objects (to call them sensible objects does not help the matter, and merely indicates their resemblance to our sense-objects) in a single world of phenomena. This single world is viewed as extended in one space and as enduring in one time; but this space and time must be outside your and my space and time, and so are strictly transcendental. Kant's doctrine is, then, strictly speaking, one of Transcendental Realism in respect to Sensible Objects in Space and Time, or in respect to Phenomena, and it should so be distinguished

from his doctrine of Transcendental Realism in respect to Things-in-themselves. But if we want a short term, it might be called Phenomenal Realism.[1] To call it Empirical Realism can only lead into error.[2]

This Phenomenal Realism does not mean that corresponding to our sense-objects are things-in-themselves in any wise resembling them. That is the kind of Transcendental Realism which Kant rejected. It means that corresponding to our sense-objects are other objects at least partially resembling them, which other objects are transcendental to us men, because not in the experience of any of us, wherefore they belong to the other species of transcendental objects, namely, as objects existing apart from us but *in another*. They may be sense-objects or phenomena existing in another Being, being caused in it by other outside things (these the things-in-themselves), or being produced in it by its own spontaneous activity, in which case they may be called its Ideas. Kant himself, however, did not carry his doctrine to this extent. He places the objects outside us in a single world of phenomena in a single time and in a single space belonging to a single consciousness. And there he leaves them. Time and space, as forms of intuition, must belong to the sensibility of some percipient Being, as also must a consciousness belong to some such Being. Kant does not tell us to what Being his one outer space and time and consciousness belong. Nor does he tell us how the phenomena appearing in that consciousness are occasioned there—whether they are its own products or are caused there by the action of still other outside things. Having reached an indefinite kind of Phenomenal Realism, which he misrepresents as empirical realism *to us*, although it can be empirical realism only to the one unmentioned Being, in whose one consciousness they exist, he is satisfied. But we cannot be.

Now a Realism of some kind we all do hold. We all of us distinguish between our representations of objects and the objects of our representations. We all think that while our representations and all that we have direct consciousness of are distinct, yet we do, through our representations,

[1] In contrast with Kant's term "Material Idealism" it might be called "Material Realism," except that Kant's is a peculiar variety of this Realism, and therefore needs special characterisation.

[2] "Empirical Realism" naturally suggests a doctrine that we have direct sense-perception of the real objects which exist apart from individual sense-perceptions of them. We have seen that Kant sometimes fell into this, but that he withdrew from it, and it is not his main position.

sensibly perceive and think of the *same* objects, which exist apart from and independently of ourselves. And because we all do hold this opinion, it may be considered a necessary opinion. It is an opinion which sane minds, induced by the conditions we meet with, normally and very early in our careers, do produce, and never find a reason to give up. On this account Kant considers it *a priori*. He admits it not to be a demonstrable cognition. But he regards it as a necessary constituent of our minds. In other words, in a search for the ultimate in our minds he stops at such an opinion as this of Realism, and does not seek further for a prior constituent in our minds that may, conjointly with circumstances, explain the origin of this opinion. That two distinct minds sensibly perceive the *same* sensible objects, it never entered his head to doubt (*cf.* iv., 42). But now occurs a curious deviation of Kant's position from that of all other men before him. That two distinct minds sensibly perceive the same sensible objects, Kant never directly says. But that by the necessary constitution of our minds we all judge that two distinct minds sensibly perceive the same sensible objects, was his position. This opinion was the *datum* with which he busied himself. And this opinion he enclosed within the realm of experience itself. This opinion, and certain others which make up Realism, he did not view as merely regulative of our views about objectified things. He viewed them as constitutive of our experience itself. But this merely means that the term "experience," instead of being confined to what we are directly conscious of, is extended to cover things of which we are not directly conscious and about which we merely have inferential opinions. Experience, so defined, contains an absolutely certain element and an element not absolutely certain. Yet Kant is apt to treat the latter as equally certain with the former. And yet again his attitude toward the latter is not so much that it is certainly true, as that we must certainly entertain it as true.

Such is Kant's so-called "critical" position in regard to his own so-called "empirical" Realism. He hardly asserts that his second kind of Empirical Realism is true—that there *is* such a single outside phenomenal world. He claims merely that we must represent to ourselves such a single outside phenomenal world. His *datum* is not the single outside phenomenal world itself. It is our representation (or conception) of such a world; which he thinks is the same in everybody else as in himself. Now such a representation must be either true or not true. If it is not true, a philo-

sopher should put it aside and seek for the truth. But to suppose it true would require a great stretch of credulity. It is easy for each of us to believe that *my* space and time are forms constitutive of my intuition—forms belonging to my sensibility, so that, in a sense, they are forms produced in and by me. Then each of us, who are distinct, would have a distinct space and a distinct time; and sensible objects, being to each in his own space and time, would be to each distinct from those in any one else. Realism would then be confined to believing that there are *other* objects apart from our individual sense-objects, corresponding to them, causing their representations in each of us, existing in an outside realm, the same for all of us,—with reserve of opinion in regard to their special nature. But to hold that the forms of *my* sensibility are not only like but the same with the forms of *your* sensibility and with those of all other people's sensibilities—that we all jointly produce one space and one time in which our sensible objects are one and the same for us all—that we all share in one experience to which we jointly contribute the laws of our understanding,—such is an opinion which no reader of Kant's work could easily be led to accept, and which Kant himself could not entertain openly. Yet, according to Kant's second kind of Empirical Realism, the single outside phenomenal world, which swims between our individual worlds and the world of things-in-themselves, is not avowedly explained as belonging to the one consciousness of a single Being outside us; and so it can be explained only as belonging to us men jointly, or to Mankind personified, especially as it is supposed to be subject to our forms and laws in order that we may have certain knowledge of its forms and laws. But this is absurd, not only because this outside phenomenal world is believed to contain many phenomena that never appear to any of us, but because such a joint possession of a single consciousness by all of us is a monstrosity. And we have seen that Kant himself could never fully grasp this position, but could get a hold of it only by slurring distinctions that ought to be recognised. There can be a world outside us, object to all of us. But this world cannot be the same with the representations of it which, excited by it, exist in the sensibility and in the understanding of distinct percipient and thinking beings. We all of us entertain belief in some kind of outer world. But it is really an outer world, and is not inside us. The Realism which we all hold is a true realism. The only thing which we mean, when we know what we mean, by saying that two or more of us sensibly perceive the same

objects, is that our distinct representations of certain objects are of the same objects. We all even go so far as to think that the common objects are also in space and time. This is a special kind of Realism. It may be called "Material Realism," provided this term be distinguished from "Materialism," which is the still more specialised doctrine that such outside spatial and timal objects are things-in-themselves. It is not Kant's Phenomenal Realism, since it does not claim the outside spatial and timal objects to be dependent upon any forms of our intuition or laws of our understanding. If such special doctrine about the spatial and timal nature of the common objects be abandoned, or questioned, as it may be on fuller analysis, we are left with Realism in its generic simplicity.

Now there is a passage in one of Kant's works which, in conjunction with scattered remarks elsewhere, discloses a very different working of Kant's mind in reference to Realism, and one which brings him into much closer communion with other philosophers and with ordinary people. It shows us that he, too, could explain our belief in Realism as an inference from certain conditions given to us individually in our consciousness,—and of course then, in accordance with certain laws of our reasoning faculty, which may be alike in all of us. In the *Grundlegung der Metaphysik der Sitten* Kant casually mentions that the distinction between phenomena and things-in-themselves depends "merely upon the distinction" observed between two kinds of our representations, namely, those which "come to us without our will," which consequently "are given to us from elsewhere, we being passive," and those which we ourselves produce, showing activity of our own (iv., 298-299). This is by no means a "critical" criterion. On it rather is Kant's criticalness based. It is a very old criterion, and was employed even by the men whom Kant denounces as Idealists, namely, Descartes[1] and Berkeley,[2] but was rejected by Leibnitz, who was here more "critical," in Kant's sense, than Kant himself.[3] Also it is not a complete criterion, because dreams and hallucinations come to us "without our will," and therefore would come "from elsewhere" (as simple-minded people have often believed). To correct this,

[1] *Meditations*, iii. and vi.; *Principia*, ii., § 1. [2] *Principles*, §§ 29, 149.

[3] That is, Leibnitz did not consider our two kinds of representations to be sufficiently indicative of the distinction between activity and passivity on our part, which distinction, for other reasons considering all our representations to be produced by ourselves actively, he made out to be apparent only, rather than real; *cf.* ed. Erdmann, 269A, 740B.

another criterion had early been introduced, to the effect that only those representations coming to us without our will, which are, as we have reason to believe, alike in many men, and which are regular according to a regularity discoverable among the majority of such involuntary and common representations, have come to us from outer objects. And this additional criterion we find employed by Kant already in the *Kritik* in his second Postulate,[1] it likewise having been used by Kant's "uncritical" predecessors,[2] and even, for a special purpose, by Leibnitz.[3] This second criterion is no more "critical" and no more demonstrative than the first, and if it may be employed as a postulate, the first would be an equally good postulate.[4]

But there was a mistake in the passage quoted where Kant makes use of the first criterion, as also in the use of the other criterion. For neither the first nor the second criterion requires the distinction between phenomena and things-in-themselves; but both are satisfied by the distinction between representations in us and objects outside us. And they are satisfied equally well whether the objects outside us be regarded as out of any spatial and timal relations, and then may be taken for things-in-themselves proper, or whether they be regarded as extended and temporal (in some space and time also outside us) and then be taken either for things-in-themselves (in an absolute space and time) or for some reason be rejected as such and now be described in some other way. Which of many alternative views about the outside objects is to be adopted can be determined only by later considerations and additional arguments. Kant's additional arguments only went so far as to show that the outer objects cannot be in an absolute space and time; and yet he carelessly accepted the unspatial and untimal absolute outside things, or things-in-themselves, at the same time

[1] See especially iii., 602-603.

[2] *E.g.*, Berkeley, *Principles*, §§ 30, 36; *Dialogue*, iii.

[3] In order to distinguish which of our actively produced representations are (according to the pre-established harmony) modelled upon outside things, and which are not; see 344B, 378B, 444, 637A, 695B.

[4] The uncriticalness is especially apparent in the Methodologie in the 3rd Section of the Kanon, and in *Prolegomena*, § 18, where one empirically unknowable (universal agreement among men about their outer representations) is used as a touchstone for another empirically unknowable (agreement of the representations with the common object), and reversely, there being no beginning or end in this procedure, and everything depending ultimately upon the distinction between conviction (Ueberzeugung) and persuasion (Ueberredung), the former of which is as much subjective as the latter, and its claim to objectivity is not accounted for.

that, for an epistemological reason,[1] he accepted spatial and timal outside objects, which, for another epistomological reason, he also placed inside us, collectively somehow, and called "phenomena," thus applying to them the same term he applied to the representations only in us, and so breaking down the very distinction he was trying to establish.

Still, apart from recondite elaborations which further meditation may put upon the doctrine of other real things, there seems to be inherent in our thought a tendency to use the above two criteria so as to form a belief in the existence simply of objects outside us, in a general way. The belief so formed is not necessarily a belief in things-in-themselves, in the strict sense; but it is a belief in things which may, without impropriety, by us be called "transcendental objects," that is, objects transcendental to us. At all events there is no disproof of this belief, nor any good reason for not retaining and maintaining it. And the tendency to entertain it is so strong that even those whom Kant called Empirical Idealists, or simply Idealists, who have maintained the existence only of other minds and of other representations, have generally held the doctrine of a Supreme Mind, whose representations, then, are of supreme importance and constitute the *one* set of objects outside us corresponding to the "from elsewhere given" representations inside us individually, so that those Idealists were as much Realists as anybody. Such a one was Berkeley,[2] and such

[1] This is apparent in the passages referred to in the preceding note; for as agreement between our outer (extended) representations and the outside common objects is demanded for purposes of cognition, this involves that the outside common objects must also be extended. Here, in fact, is the additional reason which we missed in Kant's detection of the Paralstgism in Idealism in the first edition, and in his Refutation of Idealism in the second.

[2] Kant says: "Der Idealismus besteht in der Behauptung, dass es keine anderen, als denkende Wesen gebe; die übrigen Dinge, die wir in der Anschauung wahrzunehmen glauben, wären nur Vorstellungen in den denkenden Wesen, denen in der That kein ausserhalb diesen befindlichen Gegenstand correspondirte," iv., 37. Berkeley held the first part of this description, but he did not deny that there are objects outside all of us men corresponding to our representations: precisely he did maintain the existence of such objects, only he placed them in God as "ideas" (calling them so because they are not given to, but are productively imagined by, God). Berkeley was thus an Empirical Realist (in respect to objects of the senses) and a Transcendental Idealist (in respect to material things-in-themselves).—As for Descartes, he of course was a Realist in the carrying out of his system, accepting Materialism as he did, and was a "problematical Idealist," as Kant called him, only at the beginning of his philosophising during his provisional skepticism. The term was more deserved by Leibnitz, who always maintained that we cannot prove the existence of an outer world; but it was not fully deserved even by him, since he held that we have moral certainty of it.

a one was also Spinoza,—which fact may be mentioned notwithstanding that Kant never referred to Spinoza as an Idealist; for he was one if Berkeley was, and was also an equally good Realist. Now neither the skeptic Hume, who tried to disprove the belief in the common world of outside things, succeeded in giving us any demonstrative reason for rejecting it; nor have the few dogmatic Idealists since Kant's day, who have attempted to construct systems without any common outside world, succeeded in giving us any intelligible system, much less have they added anything of value showing the need of denying such a common world. Let us, then, follow Kant and his misinterpreted predecessors, to the extent of being Realists.

There are several kinds of Realism. Kant himself offers us two—a transcendental one, but limited, and a so-called empirical one, of an amphibious nature. Shall we then accept both these, or only one, and then which one? Or shall we, gaining confidence in ourselves by the rejection of one of them, reject also the other and substitute still another in their place? Or shall we simply hesitate to adopt any one positively?

As regards the first question, Kant's critics have shown almost complete unanimity against maintaining both the Realisms together. And certainly, if there be a world of things-in-themselves, there is no need of another single objective world of phenomena distinct from our many individual subjective worlds; or if we can get along with such a single objective world of phenomena, accounting for it somehow, or leaving it unaccounted for, the things-in-themselves may be useless. Worse yet, the two distinct worlds of outside things cannot be brought into harmony with each other; for it would be a pure accident if two distinct sets of causes of our outer representations should happen to agree.[1] Or if, to avoid this, we suppose the things-in-themselves to be first of all the causes of the outside phenomena (in the one consciousness, say in God), and then these phenomena outside us to be the causes of our outer representations, this would be a doctrine too far-fetched to maintain for a moment—and

[1] In iii., 608-609, 1st ed., where the relation between the sensible world and the things-in-themselves is more elaborately expounded than anywhere else in Kant's writings, there is no need of such agreement, because the sensible objects are not made out to be causes of our representations at all, but themselves to be effects produced in us (but represented as out of us) by the unknown things-in-themselves. But this passage was written under Kant's first account of Empirical Realism, which turned out to be no Realism at all except the transcendental (of things-in-themselves), and dispensed with his Empirical, or rather Phenomenal, Realism.

it was not maintained by Kant, as we shall see presently.[1] But, very curiously, the unanimity with which the holding of both the two kinds of Kantian Realism together has been rejected, has generally appeared under the form of rejecting the Transcendental, and retaining the so-called Empirical, Realism, that is, rejecting the things-in-themselves, and retaining the outside phenomenal objects. Should we not rather, or at least also, reject the outside phenomenal objects? Let us see what the objections are to retaining them.

The question is properly this. That there are objects outside us, independent of us, affecting us, is conceded. How then shall we conceive of these? Is it proper to conceive of them as phenomena? Now it must be admitted that it is possible to conceive of them as phenomena. In the first place the word "phenomenon" means that which appears to us. Therefore as the outside things which affect us appear to us through the representations which they effect in us, they may be called phenomena. But such a use of the term has reference only to their function of appearing *to us* by affecting *us*, and does not describe what they are. It would leave it possible that they are things-in-themselves; and thus there would be no opposition between the terms "phenomenon" and "thing-in-itself". In the second place, however, the term "phenomenon" also means that which is the appearance (in some percipient being) of something else. If, then, the objects outside us are called phenomena in this sense, they are hereby distinguished from things-in-themselves, for they are only things *in alio*. It was in this sense also, and not only in the preceding, that Kant used the word, although he tried to leave out of account the *other* in which such phenomena outside us must reside, thinking he could satisfy their dependent nature by putting them also

[1] A doctrine somewhat like this, and equally far-fetched, had, however, been maintained by Malebranche, with the difference that he made what we have called "phenomena" (hence appearances *to* God of things outside and independent of him, which affect him) to be "ideas" in God's intellect (independent of his will) serving as the archetypes upon the model of which God has (through exercise of his will) created corporeal things outside his intellect. For Malebranche had two sets of objects outside us, the corporeal things proper, and the ideas of them in God; and he allowed only the latter to be "intimately connected" with our souls. The uselessness of the created corporeal things in this system is as apparent as that of any uncreated things-in-themselves, or of any created other things, in the Kantian. And likewise the uselessness comes from the fact that he made the things-in-God fully play the part of outside things for us. His belief in the corporeal things was retained mostly on scriptural authority. Berkeley's system differed by merely cutting off these useless things.

in us. But if they are only in us, they can only be in us individually, and can exist as phenomena only as they are in one or another of us: and this is out-and-out Idealism, contrary to the original hypothesis, which constitutes Realism, that there are objects outside us. If, then, we use the term "phenomenon" in this sense, of objects at all outside us, our theory of the outside world reduces either to a theory like that of Berkeley or to a theory like that of Spinoza, according as we accept a plurality of minds apart from the Chief Mind, or place all minds likewise in the Chief Mind, which now becomes the only one substance. From these two options of alternatives there is no escape. Either the phenomena outside us are things-in-themselves, or they are things-in-God. And if they are things-in-God, either we are likewise in God, or we are not. The former is a corollary analytically deducible from the meaning of the word "phenomenon" (as their being in us collectively is out of the question). We must either hold the former meaning only, which is indefinite and does not differentiate the outside phenomena from things-in-themselves; or we must reject as confused and untenable any difference Kant has sought to place between his world-view and either the Berkeleyan or Spinozan.[1] But even in the former meaning the term is inappropriate, because if there are outside things it is very supposable that some do not ever appear to us, so that they are not phenomena, but merely things that can be phenomena,[2] and it is a pity to name things by what they are able also not to be. It would, too, be inadvisable to attempt to use the word in that meaning, because the word also has the other meaning, and there would be danger of falling into it unawares. And this other meaning is likewise inappropriate, because it implies that the things-in-God are caused in God by things outside God,

[1] The similarity between Kant's world-view and Spinoza's is very apparent in the solution of the fourth Antimony toward the end of the second part of the second book of the Dialektik. The only difference is as to the relationship between the everlasting and never-begun phenomenal world, which has its own unexceptional laws, and the Necessary Being. Kant would make it a causal one, while Spinoza made it a substantial one (for which Kant elsewhere condems Spinoza, vi., 40 n.). But it is evident that Kant's "intelligible causality" here is nothing but the relationship between a substance and its accidents, so that Kant really ought to have accepted Spinoza's system.

[2] The term "phenomenable object" would express this, just as "sensible object" refers to an object that *can* be perceived through the senses, whether it is or not. The German language has not so good a word even as the latter, since its "sinnlich" does not render this shade of meaning. "Sense-object" (Sinnesobject) properly means only an object actually perceived.

so that other absolute things-in-themselves would still be required, according to the absurd theory above rejected (which is absurd because if absolute things-in-themselves are to be left over, they might as well be allowed to affect us directly).[1] Therefore as there is no especial need of using this term, it seems foolish to use it unless we are willing to carry out what is involved in the concept it denotes. If we are merely using the word as a name, meaninglessly, it would be better to choose a name that has no meaning. The adoption of the term "phenomenon" instead of "thing-in-itself" has probably been due to eighteenth-century fondness, continued through the last century, for physics, and dislike of metaphysics. Yet the subject before us is metaphysical, whatever be the terms employed. And it is certainly unscientific to misapply terms.

Are we then to retain Kant's things-in-themselves? Not necessarily, for the term "thing-in-itself" indicates a nature which we do not know to be possessed by the things outside us that are thought of as the causes of our outer representations (and therefore are said to correspond to them). When speaking of these outside causes as things-in-themselves, Kant has simply forgotten that things outside us might be things-in-another. The term "transcendental object," as already noticed, is not necessarily co-ordinate with the term "thing-in-itself," as it was taken by Kant to be; for a thing-in-God would be just as much transcendental to us (and transcendent, too) as a thing-in-itself. But Kant's things-in-themselves are objectionable also because they are not treated by him consistently. The term "thing-in-itself" properly means something existing by itself (*ens per se*), independently of anything else. Kant, however, allows, even maintains, that the things-in-themselves have been created by God,[2] so that they are no longer things existing by themselves with absolute independence, but they are dependent upon God for their existence, and their only independence is independence of us.[3] Then God is the only absolute thing-in-itself; and the term "thing-in-itself" (especially when used in the plural) being employed also in a sense only relative to us, any things-in-God, being distinct from and independent of us, would be things-in-themselves in this subordinate and relative sense. Now, that the plural things-in-themselves demanded by Kant are virtually taken

[1] This involution could easily be avoided, as Berkeley avoided it, by using the term "idea," or any other equally non-descriptive of passivity.
[2] III., 184-185; v., 107, *cf.* 105 (*Kritik der praktischen Vernunft*).
[3] *Cf.* iii., 601 top.

by him for things-in-God, is indicated by his demanding an "intellectual intuition" for them[1]—an intuition which is said to differ from ours principally in being active and original (archetypal), whereas ours is mostly passive and wholly derivative (ectypal),[2]— and again by his calling them noumena,[3] or objects of the intellect, *i.e.*, of God's intellect.[4] Consequently such things-in-themselves are in no wise distinguished from phenomena in God, except as being produced by Him instead of being "given" to Him as effects produced in Him by other things outside Him; wherefore the term "noumenon" (like Berkeley's "idea") is preferable to the term "phenomenon" in application to the things-in-God outside us. Thus, rather curiously, Kant's Transcendental Realism in respect to Things-in-themselves turns out to be nothing else than what his Empirical Realism in respect to Phenomena also turned out to be, and with it reduces either to Berkeleyan Idealism, if he allows our subjects-in-themselves to be existent (though created) substances, or to Spinozan Pantheism, if he makes also our subjects-in-themselves to be subsistent in God.[5] Here appears a special reason for rejecting the holding of both the Kantian phenomena and the Kantian things-in-themselves: because they are really the same, and only confusion is engendered by the use of two equivalent terms. We may notice that if we maintain the existence of outside objects corresponding to our outer representations, such as can properly be called things-in-themselves, and distinguished from minds, we

[1] III., 216 n., 218 n., 1st ed.; 219-220, 2nd ed.; v., 422 (*Kritik der Urtheilskraft*).

[2] III., 77, 79, 465; *cf.* 119, 123; see also ii., 404 (*De mundi sensibilis et intelligibilis forma et principiis*, § 10), and v., 421. Kant seems to think that the objects of such intellectual intuition must be wholly different from the objects of our sensuous intuition; and this seems to be one of his reasons for thinking the things-in-themselves to be unspatial and untimal. There is, of course, no such necessity involved in the mere distinction between a passive and an active intuition.

[3] III., 221; iv., 64, etc.

[4] *Cf.* iii., 222; iv., 65 n., 102-103; for our noumena are merely our thoughts about such objects.

[5] It may be noticed that Descartes made the same distinction between two kinds of substances as Kant between two kinds of things-in-themselves. The return to Pantheism within the Kantian school was nothing but a historical repetition of the course towards Pantheism in the Cartesian school—and again in the Lockian school, Locke also having had different kinds of substances. We have, then, three somewhat similar series: (1) Descartes, Malebranche, Spinoza; (2) Locke, Berkeley, Hume; (3) Kant, Fichte, Hegel. In each of these the second member drew the involved consequence only in regard to the objects, the third also in regard to the subjects.

should really be holding some kind of Materialism (or Dualism of Materialism and Pneumatism). But Kant, in allowing that the subjects of our minds and the subjects (or objects) of our phenomenal matter or bodies may be the same because both are unknown (wherein he followed Locke), and especially in speaking as if he were thinking only of one such subject,[1] was really allowing the possibility of the very Idealism he so strenuously cast from him—the Berkeleyan, and even the Spinozan, and also even the Leibnitzian Monadism,—just as a Transcendental Agnostic ought to do.[2] If we ourselves, however, are willing to take the trouble of bearing in mind the qualifications under which we employ terms, there is no reason why we should not call the outside objects "things-in-themselves" *relatively to us*, or in a negative sense, as meaning things-not-in-us. And such, though not a recommendable term, would still be a better term than "phenomena". But better still would it be simply to speak of such things as "things-outside-us," or as "transcendental objects".

There is, however, still another kind of Realism considered by Kant, but rejected. This is Transcendental Realism in respect to Sensible Objects in Time and Space. It is the doctrine, not properly that our "outer" (extended) representations or "phenomena" are things-in-themselves, as Kant frequently describes it, but that the outside things which he calls "phenomena" are things-in-themselves, or, in other words, that the objects *of* our outer (extended) representations, themselves existing outside us "in the same quality" as their representations in us, at least as regards the so-called primary qualities, are things-in-themselves instead of being phenomena of still other things, phenomena residing in the one consciousness of some one percipient Being. Such a doctrine, as already noticed, coincides with the likewise rejected Empirical Realism in respect to things-in-themselves, since it means that things-in-themselves are objects of experience to us. After the similarity we have found in Kant's treatment of "phenomena" and things-in-themselves, we must consider the distinction between this doctrine and Kant's own doctrine (the second) of Empirical Realism not to be very great. Yet in this rejected Realism

[1] III., 592-593, 604 f., 1st ed.; 289, 2nd ed.—For the same reason he ought to admit that these substrata may be different.

[2] A still plainer admission of the possibility of Idealism occurs in iii., 516, where Kant allows the hypothesis of our life being a dream to be a possible one; which he could not have done if he held his own "Refutation of Idealism" to be a strictly apodictical disproof.

the term "things-in-themselves" admits of being taken in its absolute meaning, so as to cover Materialism, and it is this doctrine which Kant rejected. Now apart from certain arguments which try to prove this doctrine inconceivable (as for instance that the attributes of things-in-themselves cannot wander over into our minds,[1] which of course is not the question), the only important argument Kant has for rejecting this doctrine, and the argument which is the motive for inventing the others, is the epistemological or "transcendental" argument, given in the Aesthetic and Analytik, and supplemented in the Dialektik. This argument asserts that such a doctrine will not permit of our certainty in applied mathematics and physics, and also will produce antinomies, and ultimately will lead to its opposite, the so-called Empirical Idealism, or doubt about the outer world itself; wherefore it is to be cast aside at the beginning as refuted by the fact of our possessing certainty in those sciences, and his own Transcendental Idealism and Empirical Realism are to be held because they constitute the only theory that will permit of certainty in those sciences and will not produce, but will dissolve, the antinomies, and save us from the offensive kind of Idealism. But we must notice that to account for our certainty in objective sciences, such as he takes applied mathematics and physics to be, Kant has to make use of his Empirical Realism in its second form; for otherwise there would be nothing objective about such sciences, and every man would have science only about the relations between his own sense-representations (or "phenomena" in this meaning of the term) and not about what goes on in any objects outside himself (or about "phenomena" in the sense of objects in space outside me). But that second kind of so-called Empirical Realism takes our sensible objects for objects in a single world in a single time and a single space outside any and all of us individuals. Therefore, let them be called "phenomena" as much as Kant pleases, they certainly are beyond our control, beyond the reach of any forms or laws in us, and if still subject to some forms and laws, only to forms and laws in the Being who has the One Consciousness. Or if the theory be that only so much of the outer world can get into our individual experiences as submits to our forms and laws (supposed to be alike in every person, but how known to be so?) this is disproved by fact; for, *e.g.*, many of our phenomena have no preceding cause in our experience. Moreover, it does not come to the point, since most of our pretended science is

[1] IV., 31; *cf.* iii., 68, 604.

about the single outside world itself, beyond what gets into our individual experiences. Consequently such Empirical Realism does not permit of *our* having certainty in applied mathematics and physics any better than does the rejected Transcendental Realism; but at best only allows to God such certainty (which God could not have in a system of absolute Materialism, but which is not a fact serviceable as a basis for us to start from in our argument). Also under that Empirical Realism the Antinomies, if they exist at all, would exist as much as under the condemned kind of Realism; for it was only by the first Empirical Realism, which turned out to be no realism at all, or by forgetting and ignoring the only genuine kind of so-called Empirical Realism, the second, which turned out not to be empirical, that the first two Antinomies were disposed of; and as for the last two Antinomies, they could be solved in the same way as Kant solved them—if indeed that was a solution—by employing the distinction between the things-in-themselves as substances and their accidents. So long as Kant retained his so-called Empirical Realism in its second form, the rejected Transcendental Realism would be equally possible and tenable, and therefore the much-vaunted Transcendental Idealism would not be necessary. For what becomes of the argument claiming to necessitate adoption of this Idealism, if, after all, the purpose for which its adoption is required is not fulfilled? Nor would this purpose be fulfilled if we gave up Phenomenal Realism and fell back upon Kant's first account, which was only Transcendental Idealism of Phenomena along with Transcendental Realism of Things-in-themselves; for then the things-in-themselves would have something to do with the nature of our phenomena, and our phenomena would not be subject only to our forms and laws, would not be wholly under our control. The only way the epistemological argument can be satisfied is by giving up Realism altogether, in which case one might as well become a Solipsist right away and treat oneself as God. Whoever is willing to run into such aberrations for the mere sake of being able to account for his pretending to have absolute certainty in the synthetic universal sciences of applied mathematics and physics is at liberty to do so. But he might better stop to inquire whether in the process those sciences themselves have not vanished, or, if he is unwilling to admit that, to examine whether the epistemological argument itself is good; for perhaps, in any case, it may turn out to be inaccurate, circular, and insufficient to account for certainty in synthetic universals.

This paper does not advocate the adoption of the Transcendental Realism rejected by Kant. It attempts merely to show that in rejecting this theory and in setting up his own Kant did not have clear and distinct ideas about the subjects of which he was treating. It attempts to show that Kant was confused in his theory of Empirical Realism, or conception of an outside phenomenal world, which his critics have generally been willing to accept, as much as in his conception of things-in-themselves, which his critics have generally repudiated. It attempts to show that Kant did not present to philosophy a new consistent metaphysical view of the world able to rank with those already founded; but that he brought forth only a muddled and ambiguous conglomeration, which, when clarified, resolves itself into one or another of the older views. Nor did he endow philosophy with valid proofs of any of its metaphysical positions, positive or negative. His "critical" philosophy is bottomed upon the argumentation that certain elements of thought are necessary for the possibility of certain cognitions or convictions, taken as facts. In religion, as is well known, it requires, for the possibility of morality, not that God exists, but that we must believe that God exists. And so in physics it requires, for the possibility of experience, not that a certain kind of Realism exists, but that we must think that it exists—must represent the world in this way. Herein only lies the original feature in Kant's philosophy,—and also its hollowness. Yet the agnosticism maintained by Kant in regard to things-in-themselves is necessary in regard to objects outside us in general. Their very outsideness puts them out of the field where evident and demonstrative cognition is possible;[1] into which field they cannot be brought back by the jugglery of a few ambiguous words. Still, as Kant himself said, when cognition is removed, belief may remain (iii., 496). And again he well said that it is not so needful to demonstrate the existence of God as to believe in Him (ii., 205); for the same may be said in regard to the outer world in general. But even for properly believing we need clearness and consistency of thought. Let us say, then, that it is not so desirable to seek to prove a special kind of Realism as it is to seek to be clear and consistent in our thoughts about what may be the various kinds. When we succeed in this, perhaps one kind may appear more credible than the rest.

[1] *Cf.* "Da das Object ausser mir und die Erkenntniss in mir ist, so kann ich immer doch nur beurtheilen: ob meine Erkenntniss vom Object mit meiner Erkenntniss vom Object übereinstimme," viii., 50 (*Logik*).

IV.—PROF. ADAMSON'S PHILOSOPHICAL LECTURES.[1]

By G. Dawes Hicks.

1. Philosophical literature has been enriched by a contribution of the utmost value and importance through the publication of the Lectures of the late Prof. Adamson, so carefully and judiciously edited by his friend, Prof. Sorley. When Prof. Adamson died, in February, 1902, it was generally recognised that one of the most learned and acute of English thinkers had prematurely passed away, and the fear seemed only too well founded that the ripe results of his life-long devotion to philosophical problems would, in large measure, be lost to the world. For, in later years, he had committed comparatively little to writing. He appears to have shrunk from stereotyping his views in print, and to have found in University teaching a more congenial means of giving utterance to conclusions, continually undergoing amplification as the outcome of further reading and reflexion. Seldom has philosophical lecturing served the strenuous purpose it did in Prof. Adamson's hands; it became for him, one might almost say, an instrument of research, so that whilst ostensibly occupied in "giving to others what Plato wisely calls 'the best and fairest thing that the best of men can ever have,' education of soul," he was at the same time engaged in "a single-minded effort to reach the truth, and so far as possible to express it". Consequently, with the exception of a few Occasional Addresses, all that remained of his work as a Scotch Professor (1893-1902) was contained in the notes of the succession of students who attended his classes and took down what he delivered extemporaneously. In seeking, therefore, to recover and preserve his last word on the problems of human thought, Prof. Sorley followed the only course available. He selected out of many volumes of students' notes those which seemed to present the maturest expression of the author's philosophical views and fixed upon reports of four series of lectures, dating from the sessions 1897-1898 and 1898-1899,—two historical and critical, leading up to a constructive Theory of Knowledge; two psychological, dealing with psychical

[1] *The Development of Modern Philosophy, with other Lectures and Essays.* By Robert Adamson, M.A., LL.D. Edited by W. R. Sorley, M.A., LL.D. 2 vols, 1903. Blackwood & Sons.

processes generally, and then more especially with the processes of Thinking,—for the basis of the present work. The first feeling of the reader will be one of thankfulness that so much has been rescued from oblivion, combined with appreciation of the editor's labour in arranging and adapting the materials for the press. The conciseness and consecutiveness of the lectures almost conceal the fact that they are lectures, and altogether the work possesses a systematic form and completeness truly, under the circumstances, remarkable.[1]

In his admirable Introduction, the editor refers to Prof. Adamson's steady adherence to the method of overcoming philosophical difficulties by reasoning them out or thinking through them. "The light that guided him was the dry light of reason, and he would never pretend or imagine that he saw more than reason illumined." From first to last, the attitude of his mind was essentially critical, and it was mainly through criticism of the work of others that he reached and formulated definite views of his own. "Philosophy," he says in one of the Occasional Addresses, "has sometimes been blamed for its habitual method of proceeding by negative criticism, and it must be allowed that the business of a philosopher has seemed too often that of rending his predecessors. Yet a general defence might fairly be rested on the ground that such is the method of thought, which always advances by distinctions and limitations, and such is the process of all organic growth and development. A negation never merely expunges. It defines, and at least points the way towards a positive" (ii., 110). The historical lectures on the "Development of Modern Philosophy," contained in the first volume, are one consistent exemplification of this dictum. They possess a continuity and organic connectedness of quite exceptional kind, because the author was gradually working up to a systematic Theory of Knowledge through a sustained attempt to view its problems in the form they assumed at different stages in the development of thought. He had the rare gift of getting to the heart of a philosophic system and of exhibiting its essential features in brief, forcible, and precise language. But he was never content with that alone. In each case, he brought to bear the penetrative and original criticism of a thinker who had placed himself *within* the circle of ideas with which he was dealing, and who, by resolutely following out a philosophical principle to its logical issue,

[1] The volumes are singularly free from *errata*. I have noted only the following: Vol. i.—p. 178, 15 lines from top, for "were present" read "we represent"; p. 265, 6 lines from top, for "injustice" read "justice"; p. 273, 15 lines from top, the comma should be after *to* instead of after *of*. Vol. ii.—p. 238, 13 lines from bottom, for "subject" read "subjective"; p. 261, last line, the word "somewhat" is awkward and misleading. Further, I cannot help thinking the passage on p. 261 of vol. i., beginning 9 lines from top, ought to read: "It may be conceivable—though I do not think it is—that development of the personal finite Ego from the Absolute Ego should accommodate itself to the *second* of these conceptions; it is hardly possible that it can do so to the *first* of them".

was enabled to indicate the exact point at which its inadequacy for further advance became evident.

In regard to fundamental speculative problems, Prof. Adamson's own position underwent extensive modification with the lapse of years. As a student at Edinburgh, he served a period of intellectual apprenticeship to J. S. Mill, and used to relate how he was in the habit of defending the Utilitarian standpoint in his college essays against the objections of the teacher of his class. On becoming acquainted, however, with the Kantian writings, to the study of which he appears to have devoted in the main his Shaw Fellowship period, his confidence in the traditional English method of approaching the problems of Knowledge and Ethics gave way, and from that time forward nothing was more characteristic of him than his insistence upon the supreme importance of the Critical analysis of experience as the basis from which to attempt the questions of modern thought. "If we are to connect our knowledge into coherency and system," he wrote in 1879, "and to understand, so far as it may be given to us, the significance of the universe in which we find ourselves, we must resume the problem as it came from the hands of Kant." [1] And in his Inaugural Address of 1895 he still maintains that in order to make discussion of our present position in philosophy clear and precise, reversion to the Kantian system is necessary (ii., 13). During most of the time at Owens College (1876-1893) he would have expressed himself as being in general sympathy with that mode of advance from Kant pursued by the later idealists, but at no time would he have accepted as satisfactory the constructive work of Hegel or that of T. H. Green and his followers. "Every effort of speculative thought," contended Dr. Adamson in 1881, "is affected by the general condition of knowledge, and every advance in scientific inquiry opens out new aspects of the notions through which explanations of speculative difficulties have been found. The problem which now lies before philosophy is, in brief, the effort to re-think the new materials that have been furnished in such ample quantity." [2] His own attempt to fulfil this requirement led him to the conviction that an important transition was necessary in the point of view from which the philosophical question must be contemplated, and in the Inaugural Address at Glasgow (1895) he definitely announces his adoption of a "new methodical principle in philosophy". Towards the idealist conception he still, in a later Address, acknowledges "a friendly and companionable feeling" (ii., 109), but it had been too "shy of the facts of experience and inclined to wheel in endless circles round the imperfect pictures which the dividing faculty of thought readily supplies" (ii., 8). In Prof. Sorley's words, "for him, unlike Kant, the Copernican change consisted in displacing self-consciousness from the position it occupies in every system of Idealism".

With the exception of a short fragment on Spinoza, it has not

[1] *Philosophy of Kant*, p. 186.
[2] *Fichte* (Blackwood's Philosophical Classics), p. 220.

been found possible to include in the present work any of the Owens College lectures, and the probability is they will remain unpublished. I propose, therefore, in what follows to indicate the main lines of difference between the position reached in the volumes before us and that which was formerly defended with an originality and independence characteristic of Prof. Adamson's teaching throughout.[1]

2. The determining factor giving rise to what Prof. Sorley describes as the "Copernican change" was undoubtedly the increasing weight which Dr. Adamson came to attach to psychological inquiry as a means of approaching, and contributing towards, the solution of speculative problems. A twofold development seems clearly traceable in his thinking. On the one hand he appears to have advanced farther and farther from the view according to which psychology is to be regarded as a purely empirical or natural science; on the other hand he appears to have been brought more and more to the belief that underlying philosophical Empiricism or Naturalism was to be discerned a fundamental principle as to the nature of knowledge which seemed to him of the utmost significance and value.

In his earlier writings, Prof. Adamson was in the habit of drawing a complete distinction between Psychology and Epistemology both in regard to scope and method. "Psychology," he declared in 1881, "as ordinarily conceived,—the scientific account of the phenomena to be observed in consciousness, the description, analysis and history of mental phenomena,—stands on precisely the same level as the natural sciences, and, like them, leaves out of consideration the problem with which philosophy as such has to deal."[2] Doubtless the qualification indicates that he had begun, even then, to question the sufficiency of such a definition. At all events later, in his lectures at Owens College, this conception of the science was abandoned, and the view adopted which in the essay of 1894 (ii., 45 *sqq.*) he subjects to criticism, *viz.*, that psychology is a treatment of the facts of mind, an investigation into the activities or processes of the inner life. Facts of mind had always the characteristic of being states or phases of a subject, in some way or to some degree aware of itself in and through them. This characteristic entirely separated mental phenomena from the phenomena of external nature, and gave to the former, as contrasted with the singleness of appearance on the part of the latter, a unique double-sided aspect, which altogether precluded a transition from the one to the other as even a possible conception. Still, however, psychology, so far from furnishing a starting point for philosophical inquiry, was itself one of the most concrete of the sciences, and presupposed, as in logical order they did, the more abstract and general study, which Kant called "transcendental".

[1] The materials in my possession are notes of various courses of lectures delivered in the years 1886-1888.

[2] *Fichte*, p. 111. *Cf. Philosophy of Kant*, p. 22.

In the volumes now published the sharp line of demarcation between Epistemology and Psychology has disappeared, and psychological considerations are allowed a much more primary significance than formerly in regard to the problem as to the nature of reality and the relation of knowledge thereto. Whilst still insisting that, in their material and in point of view, psychology and epistemology are distinct, and that "only confusion can result from prematurely mixing up the two methods and drawing upon the one while carrying out an inquiry under the other," Prof. Adamson is now not less anxious to guard himself against the unqualified rejection of the psychological method to be met with in Kant's treatment of knowledge and to maintain that for the complete solution of the problem it is necessary to combine both modes of investigation (see, *e.g.*, vol. i., pp. 112, 114, 167, and vol. ii., p. 254). Whilst still insisting that "the origin of any special modification of our experience can in no way determine its validity or worth for cognition" (i., 245), he now finds it utterly futile to carry out the inquiry into the meaning and significance of the objective reference in knowledge, without calling to aid the account psychology has to give of the way in which the distinction between subject and object makes its appearance in the history of mind.

The psychology thus brought into requisition as a *Hülfsmittel* towards the solution of what was evidently for Prof. Adamson the central problem of speculative philosophy is, however, a method of research wholly different from that descriptive treatment of psychical phenomena and their laws, the results of which he had previously declared to be "of quite secondary import for the ultimate doctrine of knowledge".[1] No contrast could well be sharper than that between the attenuated, abstract, "objektivierende Wissenschaft" of Münsterberg's *Grundzüge* and the province of eminently concrete, organic material handled in the second volume of the present work. And the difference is due to the fact that while in the former case a feverish anxiety is manifested lest psychology should be tainted by any "kind of compromise with philosophy," in the latter the conception of psychology as merely a branch of natural science is expressly repudiated. "To trace out the history of the mental life, to determine the natural conditions on which it depends, and to follow the several stages of its development from the lowest to the highest, keeping ever before us the concrete character of the whole, is," says Prof. Adamson, "impossible except as part of and in the light of a general philosophical view" (ii., 21). But, inasmuch as philosophy, as a whole, "must keep close to experience and draw its sustenance therefrom," psychology loses not but really gains its character of *Erfahrungswissenschaft* by being regarded as a pursuit so interdependent with Logic and Metaphysics that its problems lead on inevitably to theirs.

[1] *Philosophy of Kant*, p. 23.

The ground on which Dr. Adamson disputes the legitimacy of ranking psychology with the natural sciences was already formulated in the Owens College Lectures, although, at that time, the consequences were not fully developed. "Where we isolate the content (of thought) and treat it as having a quasi existence *per se*, we are," he wrote in MIND some years ago, "in the attitude of objective or natural science".[1] Now, according to the view which has lately found perhaps its most pronounced expression in the work of Münsterberg, already mentioned, *that* is precisely the attitude of the psychologist with regard to the events or processes of mind; he isolates them from their context in the mental life, and treats them as "objects which exist in consciousness as physical objects exist in space". Prof. Adamson, on the other hand, insists that, since in actual experience the events or processes never are thus isolated, to treat them as though they were isolated inevitably results in depriving them of their peculiar and distinctive character. Mental facts, as such, never can be presented in the fashion of objects; they are always facts *of mind*, and this qualification, which distinguishes them from every other class of facts, is exactly what prevents their appearance as objects. We cannot, that is to say, apprehend as themselves objects the acts or processes in and through which there comes to be apprehension of objects at all. By "object," in this connexion, he may be understood to mean that which is represented as a separate distinct existent, standing over against the cognising subject, and upon which the activity of the latter is directed. And the point of the contention is that when we describe mental states by the aid of this category we are describing them not as they are for the consciousness they compose, but as we are vainly making the attempt to regard them from the point of view of an outside observer. All care may be taken to indicate that by object is here meant psychical object, and that, therefore, no predicate which refers to the trans-subjective order of facts is assumed to characterise these so-called objects. For all that, they are still conceived, after the fashion of external things, as objects which the subject dissevers from, and opposes to, himself, rather than as ways in which he becomes himself; they are still contemplated as objects *of* which he is conscious, rather than as modes *in* which he is conscious; they are still spoken of as being *in* mind, rather than as being *of* mind. Such arbitrary severance of the mental life into an observing subject and a series of psychical events, which are taken to be "presented to" the subject, renders both terms of the antithesis unintelligible. Of the nature of the subject we can know *ex hypothesi* nothing; of the psychical states it must be said that there is nothing in them to constitute a mind, still less to entitle the observing subject to regard them as constituting *his* mind. In opposition, then, to this mode of conceiving mental facts, which

[1] MIND, O.S., IX., p. 434.

comes historically from the Kantian doctrine of an 'inner sense,' Prof. Adamson proceeds on the view that it is psychology, and not, as in Münsterberg's scheme, history, which has to deal with mental facts as *Erlebnisse des Subjekts*,—processes, that is, which essentially are *not* to be cut loose from the context in which they occur, but to be regarded as stages in the development of mind as a whole,—mind, that is more truly said to *be* its mental states than to *have* them.

On the basis of this conception, the relation of psychology to the Critical Theory of Knowledge can be determined with considerable exactitude. If psychical states as such are never objects; if, in other words, isolation, separation, individuality, are not given facts, but results that come about in experience, which it is the business of psychology to explain, the question arises whether the awareness of objective facts through mental states is itself an invariable concomitant, a primitive, original feature of consciousness. The highly complex set of conditions involved in the perception of an object are sufficient to justify a negative answer. And if we do not start with the representation of outer objects, equally certain is it that the reference to the subject is a derivative and secondary element in conscious experience. For the recognition of what is subjective comes into being only in correlation with the recognition of what is objective, and both imply a combination of factors altogether beyond the range of the rudimentary mental life. Psychology, then, may be said to have for its data, (1) the phenomena of consciousness as primary or immediate experiences, and (2) the process by which, from the characteristics of such immediate experiences, there is developed the distinction between subject and object. Epistemology, on the other hand, is concerned with the worth or validity of conceptions based upon that distinction; its problem, therefore, arises from the recognition of an antithesis, the historical formation of which psychology has to trace.

Psychology thus recovers in regard to the Critical problem of knowledge very much the position the cruder psychology of the pre-Kantian writers occupied in regard to the problem of knowledge as they conceived it. For if the 'objective reference' be itself the outcome of psychical development, then obviously the import or validity of that reference cannot be determined apart from consideration of the ways in which it has been acquired and has gradually attained to definiteness and completeness in the mental life. The nature of the reality manifested in mature experience cannot be independent of the process in and through which the manifestation is brought about. A field of inquiry of incomparably wider scope and significance than is usually hinted at in psychological text-books is thus opened out for the psychologist and the close and intimate bearing of his researches upon ultimate philosophical questions becomes apparent. And in this connexion, it is worthy of notice that at the end of his

psychological lectures in the second volume Prof. Adamson is to be found discussing the very same problems which, from the point of view of Epistemology, he had dealt with at the end of the first.

3. The fundamental conceptions which the author carries to his treatment of Psychology and the Theory of Knowledge are made to emerge, as already intimated, from criticism of the several systems of philosophy, which form the subject of the historical lectures.

The familiar distinction between a mental state as an event or occurrence of the inner life and the content of which in and through the mental state we are aware, is exhibited with great clearness through consideration of Locke's ambiguous use of the term 'idea,' - on the one hand, when he declares it his purpose to describe the manner in which the understanding comes by its ideas, on the other hand, when he defines an 'idea' as the name for "whatsoever is the object of the understanding when a man thinks". - Nothing could be more admirable by way of illustration than the instance given of the error to which this confusion leads. Locke, it is pointed out, identifies the simple idea, regarded as the pure product of affection of a purely passive mind, with the highly developed content of thought, the idea or representation of a simple quality (i., 118) The implications of the distinction between psychical state and content are further unfolded by reference to the double meaning attached by Berkeley to the term 'existence,' in the one case when he speaks of ideas or objects as existing, in the other when he speaks of souls or spirits as existing, and a doubt is at once suggested as to the propriety of using the notion in the first of the two senses (i., 126). The consequence of proceeding on the other alternative is shown in the result reached by Hume that the only type of existence is that of isolated impressions and ideas (i., 145).

So again, following the line of thought originating with Descartes, other characteristics implied in the same distinction come to recognition. At the outset, in the advance which Descartes effects from the isolated datum *Cogito ergo sum* through aid of his fifth axiom, there arises the question whether the 'objective reality' (or content) of an idea can be regarded as an existing thing, for only on that assumption can the step he takes from thought to reality be logically justified (i., 15). Another feature connects itself with Malebranche. Malebranche, it is shown, sees quite distinctly that what he calls an 'idea' (= the essential nature of what is apprehended) cannot be identical with the operation, or the 'modality,' through which it is apprehended. The idea is universal; any modality or operation of the soul is particular. The very nature of the former prevents our regarding it as identical with the latter, for how can we conceive of an apprehended circle or square as an operation of the mind? (i., 53-54.) But proceeding upon the scholastic distinction of existence and essence, he

could not avoid ascribing to the 'idea' a kind of quasi-independent existence, and erecting it into a sort of entity, having its *locus* in the divine mind. To Antoine Arnauld, the acute critic of Malebranche and of Leibniz, the credit belongs of having discerned the weakness of this position. Perception, Arnauld contends, is doubtless an operation of the mind, but our notion of it is incomplete if we take it to be an operation pure and simple. It is always an operation or act of apprehending, and from it the content apprehended must not be separated and placed in a transcendental sphere of being. The distinction is one of aspect, not of existence; the existing fact is the mental operation, the 'idea' is a construction resulting from that operation (i., 55-56). Finally, the difficulty which Arnauld discovered in the reasoning of Malebranche besets Leibniz, when he resorts to an arbitrary fiat of the divine will, susceptible of no further explanation than is afforded by the dubious *Principium Melioris*, to effect the transition from a world of ideas as contents of the divine mind to a world of actual existences, external to the divine mind (i., 104).

Before the Kantian philosophy, then, is reached, Prof. Adamson has already extracted from previous systems two principles of wide generality that form, so to speak, the guiding threads of his psychological and epistemological investigations. The first is that, although the distinction between the act of apprehending and the content apprehended is one of primary significance, it is not to be interpreted as a distinction between two isolated or independent facts. There is only one existing fact involved, the act, namely, of apprehending, which is in its own nature the being aware of a content; the content, regarded in abstraction from the mental act in and through which it makes its appearance, is not itself an existing fact, but an orderly, connected way in which a finite mind arranges its experience. It is exactly the peculiarity of the life of mind that compels us to describe each of its processes in a fashion which indicates a double-sidedness or difference in point of view. But this peculiarity is wholly misconceived, if it leads us to ascribe to the contents of our mental states a fictitious independence, to represent them as in some way 'given' to the apprehending subject, who has no other function in regard to them than that of directing upon them a kind of inner vision. There is no having such contents apart from the process of apprehension itself; they are products of the activity in and through which they are apprehended, "made by it," as Prof. Adamson in one place (ii., 57) expresses the relation. If, for example, we say, apprehension of any content, A, implies recognition of its resemblance to, or difference from, some other contents, A^1, A^2, A^3, and if we regard the contents A, A^1, A^2, A^3, as separate from the act of apprehending, then unawares we are taking the content, A, as it is *after* the act of apprehension to be the fact given to be apprehended. And there is no escaping this dilemma unless it be admitted that the process of recognising resemblances or differences, of discrimin-

ating, and by discriminating of assimilating, is not extraneous to the contents supposed to be operated on by it, but is the process whereby the contents are constituted and come into appearance at all. The second principle is not less fundamental, but is more difficult of correct and adequate statement. Put in Prof. Adamson's own words it runs thus: "Acts or states of consciousness are not rightly conceived as having for their objects their own mode of existence as ways in which a subject is modified. That is to say, a presentation or idea is not to be regarded as an act of inner knowing which has for its object the presentation or idea itself. Regarded from the side of their existence, these acts or modes of consciousness are not objects of which the finite subject is aware; they are successive modes of his own inner life, of which inner life as such the subject in turn becomes aware through the help of distinctions that are given in the content of the presentations and ideas" (i., 288). Or again, "an act of apprehension has not its own content as the object to which reference is made" (i., 287). To some extent, this is but a repetition of the position that psychical states are not objects. It is, however, also a good deal more, and the additional factor may be indicated in some such way as the following. The psychical state in and through which any content is apprehended does not itself partake of the character of that content. The act of apprehending red is not itself red any more than the act of apprehending a triangle is itself triangular. Of the character or nature of the psychical state as such we are never directly aware; it does not throw forward its own mode of being into the content to the cognition of which it gives rise We are conscious *in and through* our mental states; we are not conscious *of* them. The ground is thus cut from under the Cartesian principle upon which the argument for subjective idealism has always rested, *viz.*, that we have immediate knowledge of subjective states and only mediate or inferential knowledge of what is trans-subjective. Rather is the exact reverse true: "it is doubtful whether we ever have knowledge of subjective experience as such" (i., 285); "the ultimate nature which we designate by the term 'being conscious' is never itself a content of consciousness" (ii., 181). In other words, there is a profound difference of meaning between consciousness and the process of inner observation or introspection. To become *reflectively* aware of a mental state as forming part of the inner life is possible only for a highly developed mind; it is *never* identical with being actually in that state at the moment of its occurrence.

4. Reverting, in the light of these principles, firstly to the psychological account of the mental life as a process of development, I proceed briefly to illustrate Prof. Adamson's mode of treatment, not confining myself exclusively to the published material, but drawing also upon his earlier lectures.

Numerous difficulties surround the attempt to obtain a conception of those immediate experiences with which the mental life

must be supposed to begin. In default of direct knowledge, no other course is open than that of reasoning backwards from the complex facts of mature experience and eliminating those features that evince the marks of secondary products. On the side of cognition, it seemed to Prof. Adamson the simplest conceivable phase of consciousness would be afforded by the mere recognition of a content, possessed in however vague, chaotic and confused a manner, of some distinguishable character. The recognition would involve, therefore, the elementary function of discriminating; it would not be a state of mere passive reception, but in essence an act of judgment, although judgment is a term indicating far too developed a process to be rashly employed. On the side of feeling, we were driven, he thought, to the conclusion that the rudimentary act of recognising a content, involving, as it must, a change in the equilibrium of the inner life, would have from the first the accompaniment of pleasure or pain. Finally, although there would be nothing in the primitive consciousness corresponding to 'will,' yet it might be legitimate to assume, as dependent on the elementary feelings and following thereon in quite mechanical fashion, the germs of what we denote by the terms impulse or striving. These three factors would not at first be distinguished by any of the broad obvious differences with which we are familiar. What we have to conceive is rather a subject dimly obscurely aware of sensuous contents, experiencing pleasure or pain thereby, and in consequence being stimulated to movement.

From such rudimentary beginning, the first problem, because round it most other psychological problems group themselves, is to determine the way in which the all-important distinction of self and not-self comes to be made and gradually to acquire fixity and definiteness. In the volumes before us, two accounts are given of the conditions involved in the primitive form of this distinction, and they appear somewhat difficult to reconcile. In one place, the space-character in certain contents of sense experience is fixed upon as that which furnishes the basis for the earliest and crudest recognition of difference between the objective and the subjective (i., 291). In another place, it is maintained that the simplest phase of the distinction in question concerns solely the difference between sensuous perception and revived idea, the recognition of the latter difference depending on the fact that bodily feelings and impulses accompany actual stimulation of the sense organs and are either absent or less prominent in the case of revival (ii., 274). Probably, however, the apparent discrepancy does not indicate any real inconsistency of view. There is, as is elsewhere remarked, no such simplicity about the notion of object as to render it at all likely that its introduction is due to any one set of circumstances. In the first passage Prof. Adamson is doubtless referring to that element of objectivity which might be specifically described by the term 'externality,' and is seeking to determine how it is originally differentiated from what relatively to it comes to be regarded as

'inner'; whilst, in the second passage, he has in mind the feature of 'reality' that comes to attach to the object in contrast with what is opposed thereto as 'unreal' or imaginary. Each process is certainly susceptible of resolution into a number of constituent factors. For instance, the elementary experiences arising from resistance to movement are, beyond question, essential ingredients of the earliest representation of the extended, and it must also have been by their help that the primitive subject was enabled to characterise what was immediately presented to sense as real. Again, it is certain that in the earlier stages the self was identified exclusively with the body, and that the discrimination of the self from the not-self would be effected more or less through the presence of those presentations, feelings and impulses which mark out the body from extra-organic things. Tracing the subsequent forms of the bi-partition thus introduced into conscious experience, Prof. Adamson was at pains to show that each new characteristic giving definiteness to the object would have corresponding to it a new characteristic giving definiteness to the conception of the self or subject. For example, the characteristics of permanence and independence could not be ascribed to a perceived thing without recognition at the same time of the continuity of the inner life as opposed to its transitory and momentary acts of apprehension; the subject could not conceive of himself as one and identical amidst the variety of his changing activities without at the same time forming an analogous conception of the unity and identity of the perceived thing, in contrast to its contingent and variable qualities. A strict correlation, therefore, obtains in the development of mind. From the first vague distinction, indicated by the terms 'feeling' and 'space-extendedness' to the highly elaborated opposition of subject and object in mature experience, the advance throughout has been two-sided and reciprocal in character.

It was with reference to the processes of Attention and of Thinking that Dr. Adamson was accustomed to work out more fully the stages involved in mental development. As regards the first, he was unable to accept either of the two main theories current among psychologists. Attention did not seem to him rightly interpreted as a simple, unique, irreducible activity of mind, nor did he think the phenomena of attention could be explained on Herbartian lines in terms of the reciprocal relations between presentations. Both theories committed the error of severing the act of attention from that which was attended to, and of giving to the apperceived contents a form of substantive and independent existence. Under the name Attention, there was indicated rather, in his view, a class of complex and variable processes which come about gradually in the history of mind. The earliest phenomena capable of being described as facts of attention would be initiated by differences in the intensity of feeling accompanying any content apprehended. Variations in intensity of feeling would produce at

first no more than the purely mechanical result of retaining for a longer time than would otherwise be possible the apprehended content in consciousness. Increase in the duration of the act of apprehension would tend to permit of more precise and accurate discrimination of the content involved and afford facility for its easy and rapid reproduction in the form of idea. Repetition, in its turn, would afford the material for increased precision of discrimination. Any particular stimulation would occur not in isolation, but in conjunction with a very considerable body of simultaneously existing acts of apprehension,—in the earliest stages those which are concerned with the bodily feelings and sensations. Each succeeding stimulus, while yielding a presentation manifesting differences from what is simultaneously present at the moment, would thereby give to the resulting content new definiteness of outline. And every establishment of a new definiteness in the content apprehended would serve as a means of instituting a new comparison when a repeated stimulus of like kind, operating in surroundings no longer identical with the surroundings of the previous stimuli, took place. There was, he believed, no way of accounting for the clearness and distinctness that constitute one familiar result of attending except by thus connecting the whole process with the elementary function of apprehension, the act namely of discriminating, of recognising features of likeness and difference. In the earlier stages there could be involved by no possibility the definitely recognised distinction between the act of attending and that which is attended to. The rise of that distinction, which could only happen when the consciousness of self had attained a certain degree of stability and fixedness, would coincide for the most part with the conditions under which there is gradually formed, from the elementary experiences that precede and accompany the execution of movement, the individual will, and Voluntary Attention might fairly be regarded as Volition in one of its phases. Sense presentations accompanied with a large quantity of the experience of movement would naturally retain a prominent position in consciousness, and if they excite at the same time the feelings of pleasure or more specially of pain, and are conjoined with motor experiences that are related to continuance of pleasure or removal of pain, they would claim relatively the largest place in consciousness. Thus, in a general way, one could understand how it is that with the phenomena called attention there come to be associated those experiences of straining or effort, which, however, can only be markedly present when the will has been definitely formed, and when the subject is able to exercise control over the trains of ideas and movements. Not, then, by reason of any special activity, but through the circumstances under which the fundamental activities of mind, the activities involved in apprehension generally, develop, do the phenomena of attention, concerning which as they are exhibited in mature experience no one is in doubt, come about.

A similar mode of treatment is adopted in the extremely valuable analysis of the process of thinking contained in the work before us. Here, too, Prof. Adamson is largely engaged in combating the view that thinking is to be regarded as a special activity of mind, which operates on the materials supplied in isolated perceptions and ideas. Thinking, no doubt, in the stricter acceptation of the word, first makes its appearance in and through the separation of the relations of space and time, of identity and difference, of unity and plurality, etc., from the related contents, and the first products of thought, in this sense, are the generalised representations of these relations. But it by no means follows either that the severance mentioned corresponds to an actual separation in mode of existence, or that it points, as, for example, Lotze supposes, to a special form of reactive energy on the part of the soul. There is, indeed, nothing in the nature of even the most evolved products of thought to justify ascribing them to a specific and unique source, or to militate against the theory of a fundamental identity in process between the simpler activities of mind and those comprised under the head of thinking. All mental states, not excepting those of the earliest stages of the mental life, are essentially acts of discrimination and comparison, differing in degree but not in kind from the acts which give rise to the abstract and general notions of the mature mind. Only by a process of relating and comparing contents are likenesses and differences recognised at all, and it may be said that every likeness or difference recognised is by that very fact general and abstract in character; it is freed, in other words, to some extent at least, from its temporary surroundings and dwelt upon, more or less, for itself alone. Further, it is one of the main purposes of Prof. Adamson's analysis to show that the characteristic of necessity or objective validity especially attaching to products of thought is no new appearance in the inner life, but the natural development from the establishment in consciousness of the distinction between the act of apprehending and the content apprehended, a distinction which in its simpler form manifests itself in perceiving so soon as even a crude consciousness of self is possible, and which becomes more and more complicated as the consciousness of self increases in richness and fulness of detail. In conformity with this analysis, the difference between the notion of an object and the perception of an object may be said to consist in the difference between the number of distinctions whereby the object perceived or conceived is marked off from its surroundings. Perceiving, as being more or less bound down to a momentary stimulation of the senses, necessarily involves a smaller amount of such distinctions than thinking, which, on the basis of repeated perceptions, has become able to recognise the more permanent, invariable, essential features. And a corresponding comparison would hold good between the reflective consciousness of self and what might, without impropriety, be called the perceptive consciousness of self,—between the subject, able to conceive of himself

as the permanent correlate to the varied range of experience that has come before him, and the subject more or less apprehended as a centre of bodily feelings and the source of bodily movements.

From the psychological point of view, there appears, then, ample warrant for the conclusion that "mind is not an abstraction, that it lives only in and through its concrete expression, and that what we represent as the product of mind might just as fairly be said to be the very making of mind" (ii., 18). Mind brings with it no forms, whether of attending or thinking or even of its own unity, wherewith to master the world of fact. The states or processes, which constitute the mind's existence, and which from first to last are acts of discriminating, comparing and relating, have significance only as being ways in which awareness of contents comes about; they contribute nothing out of some original nature of their own to the nature or structure of that which they know. It is only in and through the gradual arranging and organising of its experience that mind comes to possess any unity or structure of its own, any notions or categories by which to interpret the system of nature of which it forms a part. And, on the other hand, as at the beginning there is no mind fully equipped for exerting activity, so there is none for passively receiving isolated impressions of sense. The material of experience, indeed, is given, but it is given in the form of a whole, which, as apprehended, is at first vague, undifferentiated, indeterminate, though containing within itself the conditions which enable apprehension of its parts and of their relatedness ultimately to be attained.

5. I turn, secondly, to the epistemological inquiry, conducted with the help of the two principles already explained, though furnishing at the same time independent grounds in support and confirmation of them.

The point of departure from which Prof. Adamson works his way to the position he describes as "no more than the legitimate development of what is contained in the Kantian work" (ii., 311) is that of the Subjective Idealism, which he finds lurking in most pre-Kantian systems, and vitiating much of Kant's own reflexion. The implications of the view in question are suggestively unfolded in a criticism of the Kantian doctrine of the "thing-in-itself". Ordinary experience accounts for the fact that sensations are given to, and not produced by, the conscious mind by referring to the natural conditions under which sensation comes about. But the natural conditions to which, in ordinary experience, we appeal are never unknowable things-in-themselves, but the determined, and to that extent at least known, objects of perception. Against this simple, common-sense explanation, an idealism of the Berkeleian type presses the argument that the natural conditions are themselves just such produced dependent results as those which are to be explained by their means, that, in fact, the *petitio principii* has been committed of accounting for the production of sensations by appealing to sensations themselves. The plausibility of this

argument depends, however, upon the illegitimate identification of two totally distinct propositions: "(1) that whatever knowledge we have belongs to mind and is of the nature of mind, and (2) that whatever is known consists in its own nature of those processes which are called by us 'states of mind'" (i., 233). Knowing is, of course, always an act or process of mind, but so far from this carrying with it the consequence that the object known must be a state of the subject knowing, it justifies rather the contention that were the content known equivalent to a mode of existence, a finite mind could never become aware of its own existence. Subjective Idealism starts with the assumption that the finite mind exists and knows itself as existing, but "the contents of consciousness which really constitute our knowledge are not in their own nature characterised either as having substantive existence or as constituting ways in which a finite subject exists" (i., 234). If, therefore, we have reason to believe that the external objects, to which contents of knowledge refer, give rise to the stimulation from which apprehension of sense qualities follows, the fact that the said objects are knowable, or partially knowable, is no valid ground for discrediting the belief.

According to the Kantian theory, however, the objective reference in knowledge signifies no more than the orderly and connected way in which the manifold of intuition is combined, that feature in the perceived content which constitutes its necessary and universal aspect, as opposed to the merely arbitrary sequence of sense-particulars. The object, in other words, denotes for Kant the correlative in knowledge of that unity of apperception which is the logical condition of knowledge. Everything, then, depends upon the interpretation to be put on the all-important notion "unity of apperception". And here Kant wavers between two alternatives equally unavailing for the problem under consideration. On the one hand, he draws a sharp distinction between the individuality of the finite subject and the transcendental ego, and then he characterises the latter as a purely formal identity, without element of difference, in which case it cannot contain the source of the materials of sense; on the other hand, he tends to identify the two, and then it becomes impossible to distinguish his doctrine from the Berkeleian idealism he repudiates

In the present work,—and herein one notices a decided divergence from his former exposition of the Critical Philosophy,—Prof. Adamson appears to think that the latter tendency is on the whole most in accordance with the general drift of Kant's reflexion. If, then, the Categories are but forms of the finite mind, evidently their application to the sensuous data cannot save the content apprehended from the character of pure subjectivity. And to point, as Kant does, to the difference between external and internal intuition, even though that distinction were less open than it is to objection on other grounds, in no way relieves the difficulty, for both types of objects, the so-called outer equally with

the so-called inner, are still left in the position of *Vorstellungen*, states or modifications, that is to say, of the individual mind.

Repeatedly, in the course of his argument, Prof. Adamson returns upon the Kantian theory, as thus interpreted, in order to force its inherent weaknesses to the front. Apart from the difficulty already alluded to, he points out that the conception on which it proceeds is utterly irreconcilable with the account psychology has to give of the genesis and development of mind. "What Kant offers as the explicit notion of object may be a description of what thought achieves, and may have even special importance as a description of a necessary stage in the development of experience; it cannot be accepted as indicating the immediate proximate addition to the first incoherent movement of sense-perception. . . . No one can suppose that the first, the simplest, form in which the antithesis arises in consciousness between the subjective contents of mind and an object is that developed systematised representation which appears in Kant's analysis as the correlate and expression of understanding" (ii., 254). So again, the objective unity of self-consciousness, although obviously involved in all our thinking treatment of experience as a systematic whole, is altogether inconceivable as a simple, primary datum. "From the psychological point of view, at all events, we are compelled to recognise a continuous gradation in the consciousness of self; and we cannot regard that highly developed form of it, in which it is the correlate of the orderly systematic representation of a world of things in space and time, as being the first form in which it comes forward in our experience. It may be true that what we call thinking is just the operation in and through which self-consciousness develops. But we are not justified in deriving the operation of thought from self-consciousness, still less from a form of self-consciousness which we cannot suppose to be present from the outset in the development of mind" (ii., 255-256). Once more, the conception of thinking as the activity which is necessary in order that consciousness should recognise itself as a unity may correspond fairly well to what comes about in our experience, but it cannot be accommodated to that primitive stage of mental evolution in which the representation of either object or subject is wholly wanting. The theory in question, then, places mind in an altogether false relation to experience; it lays the emphasis on the wrong side of the antithesis. So far from mind constituting experience, it would be truer to say that experience constitutes mind. So far from the unity of consciousness being there at the beginning to organise experience into knowledge of objective fact, it is only in and through the knowledge of objective fact that unity of consciousness is either possible or has significance.

There remains, however, the other trend of reflexion in Kant according to which the transcendental unity of apperception is not to be identified with the individuality of the finite subject. On

this, in his earlier lectures, Prof. Adamson was wont to lay stress as the really valuable side of the Critical Philosophy, and to maintain that the merely formal character assigned by Kant to Self-consciousness was by no means a necessary feature of the conception as such. His view of what the theory really implied was expressed in some such terms as the following. The criticism of Knowledge had been perfectly general in character, and, as such, had been entirely independent of any individuality in the subject of reference. It merely warranted us in saying that whatsoever notion we form of experience, as being antecedent to, or subsequent to, the existence of empirically conditioned finite minds, no world of reality at all can be conceived except as involving relations possible only for intelligence. What it came to in brief was this, that when we represent to ourselves a universe as consisting of related facts, whatever those facts may be, we are representing that which is possible only in and through conscious experience. The individuality of the finite subject being, then, one of such facts, we are entitled to insist that it too shall be interpreted in terms of intelligence. No doubt the phrase "in terms of intelligence" is liable to misapprehension. It must be taken, however, to refer to the contents of knowledge, and so far as they are concerned the principle is laid down that no relations of reality can be admitted as ultimate which are incapable of expression as relations of thought. If that conception be followed out, it need be in no way incompatible with what as mere matter of fact is admitted and must be admitted in respect to knowing and thinking as modes of the activity of finite subjects. As portion of the total world of experience those activities of the finite subject have their function. It is in and through them that the world of intelligible reality attains its highest expression, and such subjective activities by reason of their difference from the reality that is expressed in and through them in no way render impossible the assumption that the essential relations of things are relations of thought.

Such briefly was the direction in which at one time Prof. Adamson was prepared to carry forward the Kantian argument. A more thorough analysis of what Kant had to offer in respect to the interpretation of real existence would, he thought, lead to the necessity of largely extending the scope of that notion. For in the end Kant was compelled to admit a reality which could not be brought under the first narrow conception of reality as a determined content of perception in space and time. The treatment thus allowed to be valid in respect to that aspect of spirit or mind which is the foundation of morality must be extended to the whole realm of being, and the final conclusion of Kant, that underlying teleological judgments was the notion of intuitive understanding as forming the ultimate root of real existence, must be regarded not only as a regulative idea of reason, but as an idea necessary to complete our otherwise limited conception of the world of experience.

It is, however, clear from the present work that Prof. Adamson had come to doubt the legitimacy of this mode of advance, and had in a sense returned again to Kant for the purpose of proceeding along a different path. "It is evidently a hypothesis for which no definite grounds can be offered," he says, in criticising a statement of Prof. Stout's, "that the real core of existence is of the nature of consciousness" (i., 347). That "no foreign factor can play a part in the development of thought itself" is, he declares, "the tremendous assumption of all speculative Idealism" (i., 259). He no longer finds it possible to amend the Kantian distinction between category and idea by accepting the equally objective character of the regulative principles, for in any legitimate sense of the term 'object' the regulative principles can not be regarded as constituting part of the structure of the objective world (ii., 293).

The grounds that ultimately compelled the relinquishment of the standpoint of Post-Kantian Idealism may be gathered from the volumes before us. Prof. Adamson seems to have become convinced that the Hegelian system, having for its fundamental position the conception of thoughts or intelligible essences as constituting the structure of reality (i., 274), involved, in the long run, the same error which lay at the root of all forms of subjective idealism,—the confusion, namely, between the life of mind as a concrete mode of existence and the contents of knowledge or thought in respect of which the predicate of existence has no significance. So far at least as the finite subject is concerned, analysis had yielded the result that 'ideas,' as existences,—states of mind, as psychical occurrences,—never enter into knowledge, that in fact existence never is a part of the content of any idea; and if it be contended that content and existence in the Absolute coincide, some attempt, at all events, must be made to show how such coincidence is conceivable. Now, the place assigned by Hegel to nature seemed to Prof. Adamson wholly unintelligible, and the *Naturphilosophie* to be "in the mass and in detail a needless excrescence and a blunder" (ii., 12). And there can be little question that he encountered with respect to the Hegelian position generally the "difficulty so persistent in its appearance in Leibniz's doctrine," and "so uniformly felt in all idealist systems" (i., 104), —the difficulty, namely, of effecting a transition from the sphere of "essence" to that of concrete existence. The crude expedient of a creative act of the divine will, which Leibniz called to his aid, in so far as it is capable of intelligible interpretation at all, involved the curious assumption that between essence and existence the difference was merely a difference of degree. The compossibles, as the contents of the ideas contemplated in the divine intelligence, needed, that is to say, a supplement added to them in order to issue forth as actualities. But addition can only take place when the things added are alike in kind, whereas ideality and actuality are evidently, on Leibniz's own showing, qualitatively unlike. In the Hegelian philosophy, the conception of development supplanted that

of an inexplicable creative act, but development, regarded as the unfolding of what is already contained in the nature that develops, instead of furnishing an explanation, seems to Prof. Adamson only "to repeat as ground what is actually presented as effect or consequent" (ii., 187). He would, indeed, have agreed with Dr. McTaggart that Hegel is wrongly charged with attempting to deduce facts from the nature of pure thought.[1] So far from accepting the interpretation criticised by Dr. McTaggart, Prof. Adamson used to insist,—and the exposition of Hegel's teaching in the present work is quite in accordance therewith,—that it was never intended by the use of the dialectical method to assign any measure of real existence to the abstract generalities, which, taken together, made up the systematic idea of reality. In the procedure of the *Logic*, Hegel was well aware that he was doing no more than disentangling from the conception of reality the several elements indispensable in its regard, that he was doing no more than laying bare, so to speak, the ultimate structure of self-consciousness which in reality existed only in the concrete life of mind. But, even when so much is granted, the abstract thoughts were still in their totality taken to form a species of absolute structure or organisation in regard to which concrete reality had no other function than that of *manifestation* or exemplification. And under cover of this baffling use of the notion of manifestation, which rightly has significance only in reference to the non-existent contents apprehended, there has been surreptitiously introduced the transition from essence, conceived as though it had objective existence, to fact or actuality. As in the case of Leibniz, there has been left unexplained precisely that which called for explanation.[2]

Hegel's emendation of Kantian doctrine is, in fact, an inversion of what is demanded by a more thorough analysis of knowledge. Recognising that an ultimate distinction of kind between Category and Idea was inadmissible, he broke down the distinction by accepting the regulative principles as entering, equally with the constitutive, into the very structure of the objective world. But the feature really calling for emendation is rather the function assigned by Kant to the Categories. If they are regarded not as giving an exhaustive statement of the structure of the object, but

[1] *Studies in Hegelian Dialectic*, p. 55 *sqq.*, *cf.* p. 207.

[2] Dr. McTaggart endeavours to show that the transition in question is actually made at the very commencement of the dialectic, which, he argues, requires as its postulate that experience really exists. By starting with the idea of Being, Hegel, he thinks, necessarily assumes "the existence of some experience,—in other words, that something is". And such an assumption, he contends, is justifiable on the Cartesian ground that either denial or doubt would involve the existence of the denial or the doubt as well as the existence of the person who denies or doubts (*op. cit.*, pp. 20-21). To which Prof. Adamson would have replied that if by the denial or doubt you mean the 'content of an idea,' existence is not involved in it, and that if it were, the passage to the existence of the denier or the doubter would be for ever foreclosed.

as abstract expressions of the ways in which a finite subject comes to interpret its sensuous experience under the conditions of space and time, and thereby to attain to self-consciousness, the regulative principles will indicate a higher grade in the same development, and the difference will represent no more than a difference of content. The opposition of form and matter will be overcome, not by assuming an absolute mind as the ground of their unity, but by recognising that the material of experience is naturally characterised by coherence and constancy of connexion, and that were it otherwise mind of any sort would be an impossibility.

6. In contrast to an idealism or rationalism of the Hegelian type, Prof. Adamson describes the philosophical position to which his own investigation leads as realism or naturalism. Formerly, in his Owens College lectures, he used the term "naturalism" as designation for the view in accordance with which the knowing subject is to be conceived as a natural object, and as standing in connexion with the objects of its experience after a fashion similar in kind to the connexion assumed to hold among objects of nature generally. Such an implication is, of course, entirely foreign to the theory with which we have here to do. Again and again it is pointed out that nature regarded as a complex of objects in space and time is not, and cannot be, equivalent to the sum-total of reality. For the latter includes both mind and nature, and, as constituting a whole, these two can neither occupy a position of absolute independence, nor can their inter-relation be that of two types of existent objects which come somehow into combination. The very features upon which the view of external nature as itself constituting a whole is based are features which express no more than ways in which external nature is represented by us. The mechanical theory, which makes abstraction from all that is qualitative, and limits its treatment to the perfectly general laws of quantitative relation, deals with what can be at best only the form of reality, and furnishes in no sense an adequate explanation even of mechanism itself. It is compelled to assign all qualitative difference to consciousness, and too readily neglects the consideration that such qualitative differences must have something corresponding to them within the sphere of mechanism. It is prevented by its conception of law from taking account of the highly specialised forms in which all concrete facts come before us, and consequently leaves on our hands a residuum, on its principles practically irreducible, but nevertheless of primary significance for any true understanding of the real character of natural phenomena. Accordingly, however legitimate and necessary such procedure may be within its own province, we are bound to insist that there can be in the concrete no existents corresponding to the abstractions of mechanical science, and that ultimate reality cannot be broken up in the way assumed for purposes of scientific explanation. The Atomism, for example, which represents all mechanical occurrence as coming about from the changing rela-

tions of ultimate elements, which are themselves to be conceived as *unchanging*, rests in the long run upon an assumption exactly similar in kind to that made by the opposed idealist theories, the assumption, namely, that what is undoubtedly a characteristic of the contents of our intellectual apprehension (changelessness) must necessarily be a characteristic of the realities cognised thereby. But the assumption is not only in itself unjustifiable; it is utterly irreconcilable with what admittedly is a fundamental feature of all that is real, namely, that it is a process. "Change," as Lotze puts it, "must find its way to the inside of being": a change in relations can only be a real occurrence if the nature of the related elements be itself involved in the change. Generally, then, it is to be said that the mechanical theory, even within its own field, begins with abstractions and ends with abstractions; it can in no sense be accepted as a final and exhaustive explanation of what comes before us in external nature.

Reality, therefore, in the concrete, can find adequate expression neither in terms of idealism nor in terms of mechanism; still less can it be regarded as the arithmetical sum of two types of being, alike possessing substantive existence and connected only in the manner represented by the scheme of reciprocal determination. "Reality is an interconnected system, of which the correlatives, mind and the apprehended world of fact, are the partial manifestations" (ways, that is to say, in which we imperfectly represent what in themselves are aspects of one and the same process of actual existence). Of that reality, the life of mind is an integral part, not less necessary to the completeness of the whole than nature (ii., 20). Nor does it at all detract from the position that mind occupies *in rerum natura* to say that mind *comes into being*. The prejudice in question arises from our imperfect way of representing the law of change in the ambiguous form of a series in time. In all knowledge, the content known is freed from the conditions of time, and is in so far timeless. By an easy transition, we identify this universal characteristic of subjective apprehension with the nature of the real, and conceive of the latter as enjoying a timeless mode of existence in contrast with which that which emerges into being in time seems secondary and inferior. But not only is the contrast valueless, for the predicate of eternal would in no way intensify existence or enhance its worth; it creates a qualitative distinction between reality and its products which impoverishes the former of all the characteristics of the latter, and we are left with the empty substratum, which, whether in the form of mind or matter, has played so evil a part in philosophical speculation. If, however, that error be avoided, there is, in Prof. Adamson's judgment, nothing to contradict the supposition that in the real process of existence certain highly complex combinations, describable by us as mechanical, take the form of that immediate experience which constitutes a mode or state of consciousness. The circumstance that we cannot represent to ourselves the psy-

chical as itself a change of the mechanical kind should occasion no insuperable difficulty. For a state of consciousness, whatever its nature, forms no part of the content apprehended; and of what we call the mechanical we have, as already insisted, only an abstract and imperfect conception.

If this view be accepted, the question arises as to how far we are justified in supposing that the nature and structure of real existence find adequate representation in knowledge. So far as sense-perception is concerned, the answer is simple. The content perceived is certainly to be distinguished from the real fact to which it refers, but not as though it were another existent intervening as a *tertium quid* between the real fact and the perceiving mind, and preventing the latter from ever coming into contact with the former. The distinction indicates no more than the exceedingly partial fragmentary character of the picture which, in and through the act of perceiving, we form of the real fact immediately before us. It is, however, with regard to the products of thought, by which a conscious mind seeks to correct and supplement its first imperfect impressions, and yet in doing so would seem to place itself at a farther remove from the reality it depicts, that the problem as to whether our mental operations truly represent the nature of things chiefly calls for treatment. Throughout the present work, for example, the antithesis between truth and fact has been emphasised. The characteristic of fact is its concreteness; the contents of thought are universals. The order of fact is one of change; the contents of thought are just the types for us of the timeless and the unchangeable. The relations which seem to us to characterise the order of fact are the relatively external relations of co-existence and sequence; the relations in the order of thought may be said to be those of logical dependence. The contrast, then, is sufficiently pointed. In dealing with it, Prof. Adamson reverts, in the first place, to his psychological doctrine of the continuity between thought and perception. Each of the characteristics mentioned as distinctive of thought can be traced back to their earlier forms in the more primitive process of perceiving. The object perceived, however concretely represented, comes to have the two aspects of being independent of and determining the act of perceiving, and of being common to all percipient minds. Generality, therefore, is present, crudely no doubt at the outset, in the apprehension of fact, which we are in the habit of confining to perception, and differs in degree only and not in kind, from the generality of truth which we are in the habit of assigning specifically to thought. Again, the content apprehended in sense-perception, as distinguished from the act of apprehending, presents, no less than a content of thought, the aspect of timelessness; the simple qualities apprehended in perception undergo no change; change in their case, as in that of notions, means the substitution of one for another. Once more, the relation of dependence is the result of a generalisation of space

and time relations, and of such identities as come before us in the presentations of sense. Consequently, the contrast between truth and fact is far from absolute; perceiving and thinking denote only stages in the development of one and the same fundamental process. And the advance is throughout dependent upon and conditioned by the concrete material of experience, the transformation which that material undergoes is throughout regulated and controlled by the uniformities of conjunction in real existence, and such reconstruction as may be specifically ascribed to the activities of the inner life is possible only because those activities themselves have been formed and determined in and through the real process of which they are a part and upon which in turn they come to be exercised. The categories of thought, therefore, throw over the given material of experience no specially subjective colouring; they are but ways in which the mind organises and arranges its experience, ways which have themselves been fashioned by the experience which they organise. Accordingly, Prof. Adamson maintains, in the second place, that, since it is the necessity of fact which creates the necessity of thought, there is contradiction even in supposing that thought, thus determined and conditioned, should by its own nature be incapable of solving problems which it is compelled to put to itself and of which it is constrained to seek the solution.

7. I have been endeavouring in this article to trace the course of a very remarkable effort at philosophical construction and to marshal its several lines of reflexion under one connected view. Only in conclusion do I venture upon suggesting one or two questions, by way of criticism.

In constructing his theory of an ultimate reality, in which conscious minds arise and obtain a field for the development of self-consciousness, Prof. Adamson has found the category of reciprocal determination, with which scientific naturalism has usually terminated, wholly inadequate for his purpose, and is constrained to offer a more metaphysical interpretation of the concreteness and interconnexion implied in whatsoever can lay claim to the title, real. He insists upon the impossibility of retaining the Kantian distinction between the abstract notion of causal nexus and the concrete idea of the adaptation of nature to intelligence, according to which the first is a necessary condition of experience and the second a regulative principle. The latter, the principle of the existence of definite uniformities in the material of perception is, he contends, "a condition constitutive of our intelligence, involved in its genesis, and, therefore, in some fashion, assumed at every stage in the development of that intelligence" (ii., 298). Were there no constancy of connexion and recurrence in nature, then neither thinking nor perceiving would ever spring into being (ii., 299). Further, there are in nature not only laws, but what Dr. Chalmers called "collocations" (ii., 309). In short, reality is a whole in the sense that "throughout our experience nothing is or can be given

which is without intelligible connexion, which is incapable of being worked into a systematic form" (i., 350). But uniformity, connectedness, collocation, intelligibility,—these are characteristics of the real which not only admittedly stand in the closest relation to the products of our thinking activity, but are themselves what Hegel designated "objective thoughts". Do they not force upon us a more radical transformation of the older naturalism than even Prof. Adamson appears to have thought necessary? He is strenuous in maintaining that "the coming into being" of mind in no way settles its place in the scheme of things as a secondary and inferior fact. But, on the other hand, does its "coming into being" in any way minimise the demand we must make on the scheme of things in which such a "coming into being" takes place?

This question leads at once to the interpretation Prof. Adamson gives of the notion that plays so large a part in his system,—that of development. It is, he contends, a cardinal error committed by "writers more or less of the Hegelian school," and by idealists generally, to represent the essential character of development as the unfolding or manifestation of that which in another aspect is already contained in the ultimate reality. According to this view, nothing arises in the developing nature *de novo* which is not in some way preformed and anticipated from the beginning; the process consists in making explicit what is already implicit; there is implied throughout "the idea of the end which is to be realised as somehow existing" (ii., 304). A very Proteus, this conception of End as an efficient idea, impressed on and operative in the structure of that which develops, turns up in infinitely varied forms; now as the Platonic world of ideal perfection, now as the Hegelian absolute, now as the modern naturalist's cosmic order (ii., 83). In Prof. Adamson's judgment, all such theories are utterly devoid of justification. The notion of end is, he contends, a wholly practical category and has no consistent application beyond the limits of the individual's practical experience. Even there, the doctrine that morality is the gradual realisation of a final end, known beforehand, is untenable and altogether barren; what the human agent has before him, at all events in concrete form, is never the absolutely best, but only the relatively better, and that not as in any way already existing, but only as represented in idea. In the phenomena of organic life and of the life of mind there are, however, no grounds for assuming that the sequence of changes is preceded by a representation of the result to come about. The course of development, manifested by the phenomena in question, is, in no sense, so pre-determined that the external conditions play the part only of stimulating occasions calling forth into explicitness what is implicit. The development can never be explained as arising solely from the activity of some inner process, but is in all cases dependent on external circumstances, which may or may not be furnished.

It is worth noticing that in no respect is the difference between

Prof. Adamson's earlier and later position more marked than in regard to this notion of "End". In his Owens College lectures of 1888 he maintained strenuously that the conception of an absolute or final end, of a good-in-itself, was implied in the very idea of a self-conscious being whose life exhibits development. For development in the spiritual life was much more than mere growth; it presupposed that the subject was capable of representing to himself that, the realisation of which would yield complete satisfaction to, or be the perfection of, his nature. It was true that no more than the general characteristics of such final end could ever be presented to himself by the moral agent, at any particular stage of his development, but of these general characteristics he could at least be well assured. It would be an end and not a means, an end requiring unconditionally to be followed, not only final but internal,—a mode of self-conscious activity or existence, prescribed by reason and recognised by a rational being as unconditionally desirable. This good-in-itself had, indeed, significance only when taken in relation to what the concrete subject had been able to determine as good, but to question the validity of the conception on that account would be akin to questioning the possibility of general notions in knowledge because any act of knowing is the particular act of an individual mind. Always in human experience there were the two factors, distinguishable but not separable, the empirical and the ideal. In knowledge, as in action, there was involved, by the same necessity of reason, an ideal conception, the conception of a completed system, insight into which is never realised to the full, and the exact representation of which is from its very nature constantly varying.

The decisive consideration which led to the abandonment of 'final end' as a legitimate conception, either in the sphere of the practical or the theoretical life, appears to have been the impossibility Prof. Adamson felt of freeing the notion from the implication that the realisation of such final end in some way already exists. And it cannot be denied that both in the passage he cites from Hegel and in the writings of Green,[1] that implication is acknowledged in so many words. As against it, Prof. Adamson's reasoning seems to me conclusive. Why should a perfect and absolute mind proceed to institute within itself a laborious process of evolution for the sake of producing that which, with or without such process, in Green's phraseology, "eternally is"? But it may well be doubted whether, on our author's own premisses, the conception of development has been disengaged from all that is specific to the Category of End and that we are left with nothing corresponding to it save "a characteristically distinct combination of empirical features" (ii., 192). "That a new product shows traces of being modified by what is past ought not," he says, "to be interpreted as signifying that the new fact is merely explicit

[1] See, *e.g.*, *Prolegomena*, § 187.

manifestation of what is implicit" (ii., 191). The external conditions, that is to say, have been no less instrumental in bringing about the result than the internal. Granted; but then the argument of the present work has been one sustained polemic against the tendency of severing the inner and outer sides of conscious experience as though they were two distinct realms of being. Does it not seem, then, a natural question to ask whether the terms implicit and explicit are equally devoid of significance when applied, not to any particular constituent of reality, but to reality as a whole? Prof. Adamson cannot be taken to imply that the emergence, for example, of psychical life "under certain conditions describable by us as mechanical" is to be regarded as a purely fortuitous or accidental occurrence; such an interpretation would render "the necessity of fact," on which he insists, unintelligible. He cannot mean that mind is an episodic appearance in world, which might conceivably have gone on existing without it; such a view would contradict all he has to say of the life of mind being no less necessary to the completeness of the whole than nature. But if this supposition be ruled out, is there between it and the theory of an ultimate purposiveness in nature any half-way house left in which to escape from the inference which the contention that "throughout our whole experience, nothing is or can be given which is without intelligible connexion" seems to force upon us? Surely there is a possibility of conceiving what Green called "a plan of the world" without imparting into the conception his implication that the said plan is eternally realised in the absolute mind. Indeed, one might go the length of saying that the two things are essentially contradictory. If, in the finite mind, all thinking is idealising (ii., 113), what valid reason is there for refusing to admit the idealising character of thought even where the attribute of finitude no longer attaches to it? In other words, can we not conceive a mind, the contents of whose knowledge stand, so far at least as the cardinal feature of the non-existential character of truth is concerned, in much the same relation to the whole process of reality as the contents of our knowledge stand to that limited portion of the real with which we are in contact? At all events, without a terminus of this description, Prof. Adamson's metaphysical system reaches no logical completion, but leaves us with a characteristic set of problems unsolved. And formerly he used to insist that it was incumbent on us, as one part of the attempt to lay out the theoretical basis of knowledge and morality, to show how reality can be of such a nature as to furnish the field of development for beings capable of forming intellectual and ethical ideals. The ultimate ground of an intelligible and moral order of facts,—an order in which the evolution of human consciousness on its theoretical and practical sides is an integral part,—could not lie, he then urged, in the facts themselves as such; it was to be sought in the meaning and significance the contents of experience come to possess for a thinking mind, and

in the interpretation of which a thinking mind attains its highest exercise and worth.

But whether or no we are able to call halt exactly at the point to which these volumes bring us, there cannot be a moment's question as to the permanent place they will occupy in philosophical literature. They mark a distinctly new stage in the history of English speculation, and will form a basis of profitable discussion for many years to come.

V.—CRITICAL NOTICES.

Studies in Logical Theory. By JOHN DEWEY, with the co-operation of Members and Fellows of the Department of Philosophy. Chicago: the University Press, 1903. Pp. xiii, 388.

THESE *Studies* are one of the ways in which the Chicago philosophers, headed by Prof. Dewey, have been celebrating the tenth anniversary of their aspiring university, and form the eleventh volume of the second series of its "Decennial Publications". So much for the external occasion for the appearance of this goodly volume, concerning which it may also be observed that the heavily clayed paper augurs ill for its permanence and emulates blotting paper in its attitude towards ink. Passing to the contents, it may at once be said that we have here a weighty contribution to current logical controversy, which will probably prove of special interest to the historian of philosophy (whether in Germany or in some supercelestial sphere) as an effort which utilises for the elucidation of our logical procedure the teleological psychology of modern times, and largely (and, until recently, independently) parallels the 'Pragmatism' of William James and his friends. So close indeed is this parallel and so undesigned the coincidence, that no one who fully realises the importance of this movement can fail to be reminded of the double discovery of Natural Selection by Darwin and by Wallace. Not that the *word* Pragmatism so much as occurs in these *Studies,* indeed it is somewhat unfortunate that their terminology is so widely different from that of Prof. James, and by no means self-explaining: but there can be no doubt that the *thing* is there in a fully conscious form. This, *e.g.*, is how Prof. Dewey states it in his Preface (italics mine): "*Since the act of knowing is intimately and indissolubly connected with the like yet diverse functions of affection, appreciation, and practice,* it only distorts results reached to treat knowing as a self-enclosed and self-explanatory whole—hence the intimate connexions of logical theory with functional psychology; since knowledge appears as a function within experience, and yet passes judgment upon both the processes and contents of other functions, its work and aim must be distinctively reconstructive or transformatory; since Reality must be defined in terms of experience, judgment appears accordingly as the medium through which *the consciously effected evolution*

of Reality goes on; there is no reasonable standard of truth (or of success of the knowing function) in general, except upon the postulate that Reality is thus dynamic or self-evolving, and, in particular, except through reference to the specific offices which knowing is called upon to perform in readjusting and expanding the means and ends of life."

It is plain that this represents an independent attainment of the pragmatist point of view, involving advantages (and difficulties) of its own, even though Prof. Dewey is doubtless fully warranted in acknowledging "a pre-eminent obligation on the part of all of us to William James, for both inspiration and the forging of the tools with which we have worked".

All of this will appear clearly from a sketch of the contents of these *Studies*. In the first four essays, dealing with *Thought and its Subject-matter*, Prof. Dewey sharpens his claws on Lotze's logic, and shows that a logical theory which abstracts from the psychological conditions of actual thinking leads only to abstractions which have no possible reference or bearing (p. 8). Thought in general and reality in general cannot be brought together, bald 'fact' and hypothetical 'idea,' each conceived as ontological fixtures, can never coalesce into a knowable world. Hence Lotze, taking a static sense-experience as furnishing the antecedents of thought, is confronted with a hopeless problem in trying to force rationality into it by thought. For if thought in any way shapes this material, it alters it, and leads further away from reality (p. 36): if it merely accepts it, it becomes nugatory. Nor is it a way out of this quandary to urge with Prof. H. Jones that a reality independent of thought should never have been assumed. The transcendental logic (Hegel, etc.) had tried this way, and found itself involved in the same difficulty, from which Lotze vainly tried to extricate it. For however we insist on the omnipresence of thought, our discursive finite thinking has in every case to start from a factual material of practical social and æsthetic values which it has to interpret into a rational system. If we regard this material as constituted by a prior 'creative' or 'absolute' thought, we abusively strain the meaning of 'thought,' and only add a metaphysical problem to the logical problem we have left unsolved. For "if (p. 46) reflective thought is required because constitutive thought works under externally limiting conditions of sense, then we have some elements, which are, after all, mere existences, events, etc. Or, if they have organisation from some other source, and induce reflective thought, not as bare impressions, but through their place in some whole, then we have admitted the possibility of organic unity in experience, apart from Reason, and the ground for assuming Pure Constitutive Thought is abandoned." Thus Lotze's significance is that his "effort to combine a transcendental view of thought (*i.e.*, of Thought as active in forms of its own, pure in and of themselves) with certain obvious facts of the dependence of our thought upon specific

empirical antecedents, brings to light fundamental defects in both the empiristic and the transcendental logic. We discover a common failure in both: the failure to view logical terms and distinctions with respect to their necessary function in the redintegration of experience" (pp. 47-8). For this reason (p. 83) his "original implication of a separation between an independent thought-material and an independent thought-function and purpose lands us inevitably in the metaphysics of subjective idealism, plus a belief in an unknown reality beyond, which unknowable is yet taken as the ultimate test of the value of our ideas as just subjective".

But (p. 63) "the primary logical problem is to study thought-in-its-conditioning," in which (p. 70) the "meanings become the tools of thought in interpreting the data," while "the sense-qualities which define the presented situation are the immediate objects to thought" (p. 70). It is the control of this present situation which is the aim of all actual thinking, and the reality of the 'facts' we acknowledge, no less than the 'truth' of the ideas we employ, is relative to this aim. And in such a situation there is no antithesis of thought and fact, truth and reality, but an "uninterrupted free and fluid passage from ordinary experience to abstract thinking, from thought to fact, from things to theories and back again" (p. 10).

In a very similar way Miss H. B. Thompson of Mount Holyoke College dissects Prof. Bosanquet's *Theory of Judgment*. She shows that Prof. Bosanquet never succeeds in explaining how it is that in judgment ideas manage to refer to reality. In order to avoid making knowledge merely a relation between our ideas, it was assumed that reality is not constructed, but only reconstructed, in judgment. This however results in the notion of a real world as it is in itself, which has to be related to the real world for any individual, and a subject which is both in and out of the judgment. Similarly the predicate has to be "an accurate representative of reality," and yet is "an idea which is, both in its existence and in its meaning, palpably the outcome of transformations wrought upon given sensory contents by the individual consciousness" (p. 101), and it seems strange to "suppose that by distorting reality we get it in shape to affirm *of* reality" (p. 102). The final outcome therefore is, that "the more thinking we do, the less we know about the real world" (p. 102). But, Miss Thompson pertinently asks (p. 104), "would it not be possible to drop the presupposed reality outside of the judgment-process . . . and content ourselves with the sort of reality which appears within the judgment-process?" Is not "truth rather some *specific* relation within experience, so that our problem is . . . what are the marks by which we discriminate a true reference from a false one" (p. 105)? Using such a "practical criterion of what as a matter of fact will work," she finds that "what can safely be taken for granted as a basis for further action is regarded as real and true" (p. 106). Judgment then deals only with "the real world as it is to me" in

a definite 'situation' to which the predicate suggests a tentative reaction. After some further suggestive remarks on the relation of judgment and inference, and its alleged timelessness (in which Prof. Bosanquet has probably enshrined a pious memory of Green's 'timeless act'), Miss Thompson concludes by admitting that her solution must represent reality as itself in process of development, but declines to admit that the perfect is necessarily "that which is finished and ended" (p. 126).

The chief defect I should note in Miss Thompson's paper is that it does not adduce sufficient evidence to show that Prof. Bosanquet really holds the doctrine she attributes to him. I believe myself that at bottom he does, but at the same time it would have been only fair, and in the end also more instructive and convincing, to point out the frequent occurrence in him of *aperçus* as to the building up of 'reality' by *our* thinking (not the Absolute's!), as to the impossibility of its 'copying,' and the presence in it of interest, which *sound* like pure pragmatism, and are only prevented from *meaning* it by the dominant prejudices of the intellectualistic school in which he was brought up and from which he has not been able to emancipate himself. In Prof. Bosanquet these features are considerably more marked than in Mr. Bradley, but even the latter supplies quite enough standing ground for a pragmatist reconstruction of the theory of knowledge, and only arrests himself on the path to Voluntarism by an arbitrary fiat of will (*cf. Appear. and Real.*, pp. 153-5).

There follows a shorter paper by Prof. S. F. McLennan of Oberlin, on *Typical Stages in the Development of Judgment*, to prove that "judgment is essentially instrumental," *i.e.*, that ideas are "instruments for transforming and directing experience by way of constructing anticipations, and the conditions appropriate to their realisation. . . . The true idea is reliable, carrying us from anticipation to realisation; the false idea is unreliable, and fails in bringing the promised result" (p. 131). From this point of view the types of judgment, impersonal, demonstrative, universal, disjunctive and intuitive, indicate successive stages of growing control. Knowing, therefore, is never a copying of reality by ideas, but an immanent process "which contains and constructs its criterion within its own specific movement," and so "can verify its constructions" (p. 141).

The next essay, by Dr. M. L. Ashley, considers *the Nature of Hypothesis*, with a view to showing that not only is a hypothesis a predicate, but that any predicate, as a tentative analysis of a 'situation,' is essentially hypothetical. Hence (p. 153) "the hypothesis is just the predicate-function of judgment definitely apprehended and regarded with reference to its nature and adequacy".

Dr. W. C. Gore, Assistant Professor of Psychology at Chicago, examines *the Image and Idea in Logic*. The empiricist and the 'conceptualist' (*i.e.*, intellectualist) have both failed in their

account of the logical use of the image, owing to an incomplete psychological analysis (pp. 192-3). They separated imagery and meaning, between which there is psychologically no break. "The response to an image—or to any stimulus *via* that image—is the meaning of the image" (p. 193), whence "psychical response and logical reference become equivalent terms" (p. 198). "Imagery functions in representing control as ideal, not as fact" (p. 197), but control is what it aims at. Nor is its sensuous content useless (as Bradley alleges), for it "enters into that conscious process of discrimination, comparison and selection of doubt and inquiry which constitutes the evolution of a judgment" (p. 202).

In the *Logic of the Pre-Socratic Philosophy* Prof. W. A. Heidel of Iowa College has chosen a subject which compels him to make bricks without clay out of scattered straws of tradition. It is no wonder therefore that his essay is somewhat loosely connected with the rest, and even with its own title. He sees however clearly that the origin of our principles can only be explained "in terms of will and interest" and that the history of thought points to "the primacy of the practical as yielding the direction of interest that determines the course it shall take" (p. 205).

The next essay, by Dr. H. W. Stuart of the Iowa State University, is the longest of the series. It is entitled *Valuation as a Logical Process*, and its general aim is to show that "judgments of value . . . are essentially objective in import, and are reached through a process of valuation which is essentially of the same logical character as the judgment-process whereby conclusions of physical fact are established—in a word that the valuation-process . . . is constructive of an order of reality in the same sense as . . . is the judgment of sense-perception and science" (p. 227). I have however found Dr. Stuart's proof of this thesis somewhat hard to follow, partly no doubt because instead of starting with an inquiry into the nature of value and its various forms, he assumes that the ethical and economic judgments are the only judgments of valuation, and only attempts to justify this and his exclusion of æsthetic and pleasure values and valuations at the very end, in what seems to me a wholly unconvincing manner. Had he begun at the other end, he would have no difficulty in showing (as I have done in *Humanism*, pp. 54-5, 162-3, 259-60) that since the logical judgment of 'fact' as 'true' and 'false' is *just as clearly a valuation* as any other, its claim to an exclusive objectivity is absurd. Still no pragmatist need quarrel with Dr. Stuart's conclusion (p. 340) that "the realms of fact and value are both real, but that of value is logically prior, and so 'more real'. The realm of fact as a separate order, complete and absolute in itself, is an abstraction that has forgotten the reason for which it was made."

The final essay, one of the ablest in the volume, is by Assistant Professor A. W. Moore of Chicago. Under the title of *Some Logical Aspects of Purpose* it criticises what may be called the back-

sliding pragmatism of Prof. Royce. Prof. Moore shows, very lucidly, that though Prof. Royce makes a great parade of recognising the purposiveness of the idea, he yet uses it in no less than *three* discrepant senses as " (1) the purpose, (2) the partial fulfilment of the purpose, and (3) as having a further purpose to correspond to an object in the 'absolute system of ideas'" (p. 349). Of these the first equates the idea with a scientific working hypothesis, and if followed steadily would lead to no difficulty. The second is no longer a purpose, but the fulfilling experience which validates the idea which was our 'plan of action,' and is 'true' when it can convey us to a point where we can 'pause satisfied'. Lastly the third is but " an heirloom from the time of Plato," arbitrarily alleged as the purpose of the ideal interpretation of experience, which not only proceeds without it, but is ruined by its introduction. For by this *coup* the purposive function of the idea is at once reduced to the representative (p. 365). To justify it, it is necessary to assert that an idea which fulfils any finite purpose attains only to fragmentary fulfilment. This, however, reduces all human truth to error, which also is 'a partial failure to fulfil a purpose'. It results that " the idea is left either with two independent purposes—one to reconstruct finite experience, the other to represent and symbolise the absolute system—or one of these purposes is merged in the other. When the attempt is made from the standpoint of the absolute system, the reconstructive purpose is swallowed up in the representative. When, on the other hand, the need for a basis of distinction between truth and error is felt, the representative disappears in the reconstructive function " (p. 372). Royce's difficulty is shown to arise from his uncritical acceptance of the purposive quality of the idea in the abstract, without inquiry into the actual source of the purposiveness. But as the idea is always a plan for coping with a definite situation, the fulfilment which satisfies it must always be relevant to it. The purpose is a means to the reorganisation and reconstruction of experience and the purposive function, the purposive activity advances from one trial and its satisfaction to another, and in so doing constructs the world of reality for man. Thus (p. 382) " in the loving and hoping, desiring and willing, believing and working, shall we find that reality in which and for which both the world as fact and the world as idea have their being ".

My fundamental agreement with Prof. Dewey and his associates is such that I have devoted this review mainly to paraphrasing and bringing out the most salient points in their welcome doctrine. Criticism of details would be easy but unprofitable, and I would not maintain that even as a whole these *Studies* were beyond cavil, or that they, any more than anything yet published on the subject, could rank as more than *Vorstudien* to that 'Logic of Pragmatism' which is to regenerate the science. Nevertheless the work is one with which students of logic will have most

carefully to reckon. It suffers no doubt from a certain amount of repetition, and some of the essays would gain by compression and rearrangement. Nor is it an easy book to read, or fascinating in point of style. But in all these respects logicians are accustomed to fare hardly, and so have no right to be fastidious. And even the strictly academic style, and the abundance of technicalities, should commend these *Studies* to many with whom the scientific character of Pragmatism has fallen under the gravest suspicions, mainly because some of its previous exponents have, in the hope of gilding the bitter pill of novelty, unwisely departed from the customary dulness of logical exposition.

F. C. S. SCHILLER.

Agnosticism. By ROBERT FLINT, D.D., LL.D., F.R.S.E., Professor in the University of Edinburgh, etc. London and Edinburgh: Wm. Blackwood & Sons. Pp. xvi, 602.

THE nucleus of this book consists of the Croall Lectures on Agnosticism, given by the author in Edinburgh in 1887-8, and now expanded into an elaborate critical and historical treatise.

The origin of the term "Agnosticism" is well known; it was used by its inventor to signify "impartial, critical truth-seeking, free from every trace of dogmatism". But as Prof. Flint shows, this by no means required the invention of a new term; nor is the term "Agnosticism" etymologically or otherwise appropriate for the purpose. However, the word came to stay; and it marks an attitude of mind familiar throughout the history of thought,—not "truth-search," but Scepticism (in the philosophical sense) more or less complete (10, 12, 21). It is "so vague and variable that to attempt to reason on it in itself, apart from its actual manifestations, must be futile" (78); "agnosticism is, in fact, never self-consistent, and never exactly this or that, but always relatively a more or less" (191). Prof. Flint also points out that it seems essentially impossible for an agnostic and a non-agnostic to agree on a definition of "agnosticism," since to one it is a rejection of merely imaginary knowledge on real grounds, and to the other a rejection of real knowledge on merely imaginary grounds (16, 17). Among the by-products of these first two chapters are a very interesting account of the views of M. de Roberty (59) and a vigorous criticism of Sir Leslie Stephen's *Agnostic's Apology* (67).

Chapters iii. and iv. contain a history of agnosticism; first from the Greeks to the Renaissance (ch. iii.), followed by a full account of the agnosticism of Hume and Kant (ch. iv.). The former is a good popular account, resting on sound knowledge and very wide reading. References are given to authorities and original sources of information. Particularly interesting is the presentation of "the agnosticism of the transition period,"—Montaigne, Charron, Sanchez, Le Vayer, Pascal, Bayle, and a few others. The account

of Hume, too, gives a good view of all sides of the activity of his versatile intellect. The account of Kant is less successful (140-190). Any treatment of Kant which isolates and emphasises only the agnostic elements in his thought cannot be satisfactory. And for a "popular" account certain difficulties are touched on in passing in a way which is of no use to the reader who is not a technical student, and at the same time is too brief to constitute any basis for discussion for the trained student: *e.g.*, the question whether Time ought not to have been ranked "rather among the categories of the understanding than among the forms of sense" (148), and whether "the matter or content of experience" comes to a greater extent from within than from without (157). The discussion is also not free from obscurities: *e.g.*, "a cognition may be either . . . a particular notion or an impure intuition" (145), —alternatives that Kant is stated to overlook. What is a "particular notion"? Again,—the mind knows space "only as independent of itself, as out of itself, as what it and what the objects it knows are in". Is the mind "in space" like an object? Kant's doctrine of the empirical reality and transcendental ideality of space and time, and that space is not a thing-in-itself, is made to mean that "space merely seems real and objective, and is actually ideal and subjective," and this, says Prof. Flint, is "not to repel scepticism but to vindicate it" (148). Why not simply point out that, while the agnostic or "relativistic" strain is certainly to the front in the *Aesthetik*, what Kant really means, read in the light of his subsequent writing, is that *space is not an absolute reality*, —a thing depending on nothing beyond itself for its own existence? Prof. Flint's inability to come into touch with Kant's views on this point is probably explained by the fact that he himself regards Time and Space as absolute realities (311). This seems to us necessarily to carry with it the assertion that the mechanical theory of the universe is ultimate truth; which is to surrender all the strongest positions won by philosophical thought since Kant.

Prof. Flint speaks of "the transcendental deduction of the categories, or in simpler terms, the showing that they must apply to objects, and how, or to what extent" (153). The categories do not *apply to* objects but are *partly constitutive of* objects; this is directly implied in Kant's views, and is elsewhere stated by the author himself (158, 161). Other very questionable statements, occurring in the criticism of Kant's Transcendental Dialectic, might be mentioned; *e.g.*, that Kant assumes that "even necessary thinking of a being as necessarily existing is no assurance of its existence" (178); or that because Kant "would have us believe that causality only gives order to sensuous impressions but can by no means carry us beyond them," he had no shadow of right to represent causality as even subjectively necessary (180). Surely one may now take it as accepted that what Kant really means is this: by the principle of causality we may regard finite things as causally connected with one another, but we cannot, by means

of that principle, pass from the finite to an Absolute Cause, as Berkeley and Martineau, for instance, endeavour to do.

Passing on to the discussion of actual forms of agnosticism, the author argues that "Complete Agnosticism," *i.e.*, systematic and universal doubt (or disbelief, as the case may be), is self-contradictory. He then raises the question, is *any* limitation of agnosticism consistent, and answers it in the negative. Limited agnosticism is always an inconsistent union of scepticism and dogmatism: this conclusion is illustrated by an examination of Pyrrhonism among the Greeks, and by a criticism of Hume's Essay, *Of the Academic or Sceptical Philosophy*, where Absolute Scepticism is erroneously called Pyrrhonism (by Hume). "Hume had . . . nothing to urge against what he calls an excessive scepticism but an instinct which he alleges can be proved to be irrational, and the evil consequences which would flow from admitting as true what he holds cannot be shown to be false" (253). "The only ascertainable limitations of the mind manifesting itself as Reason—*i.e.*, in the appropriation of knowledge and truth—are those which are inherent in its own constitution . . . and constitutive of intelligence" (300).

In his discussion of the conception of "ultimate objects of knowledge," the author, in a passage to which we have already referred, seems to assert dogmatically that Space and Time are known as infinite, eternal, and necessarily existent, and that such a knowledge "should at least suffice to prevent us from venturing to deny that God can be known as eternal, infinite, and necessarily existent" (311). Surely a most unfortunate comparison, which the author proceeds to work out so as to suggest that he is setting up three Absolutes, Space, Time, and God, the only result being an absolute self-contradiction. Or, if the "eternity," "infinity," and "necessary existence" of Space and Time are not *absolute*, then my knowledge of them gives no more light on my knowledge of God than is given by my knowledge of the table before me.

The remainder of the book is taken up by a consideration of agnosticism with regard to the self, the world, and God (and religious belief in general). The two former are briefly treated. The discussion of the primary and fundamental question of self-knowledge (317 ff.) cannot be considered satisfactory. The author's contribution to the problem appears to be summed up in the statement that "there is nothing of which a man is more certain than that he is; that he is conscious that he is; and that his consciousness that he is, is a knowledge on which he may safely and confidently rely;" but "around each man's little sphere of self-knowledge there stretches immeasurable self-ignorance" (331, 332). We believe that no discussion of this subject is adequate which does not take account of such a criticism of self-consciousness as is contained in Mr. Bradley's *Appearance and Reality*. "Agnosticism with regard to the world" (335 ff.) is handled in a strangely ineffective manner, and none of the real difficulties concerning Perception are touched. On page 361 reasons are given for believing that "the contents of

the world . . . although the ultimate grounds of them may be spiritual, are real external and material things". But on page 376 it is said, "that all our perceptions are hallucinations and all their objects illusions, is as plausible and credible a doctrine now as ever it was". Prof. Flint is no sceptic; but he has been led into dangerous overstatements in his eagerness to support Mr. A. J. Balfour's contention that "the case against religious science is no stronger than that against other science" (380).

The whole discussion of Agnosticism with regard to Religion is of special interest for the student of religious thought, but does not, except with respect to a few points, call for comment in this place. Part of it, *e.g.*, the criticism of Hamilton, Mansel and Spencer, covers very familiar ground. The author proceeds to sketch a theory of Belief, in its nature and relations to Tradition and Authority; and incidentally he criticises the views on this subject of Bain, of W. James and Wilfrid Ward, and of Sabatier and the Ritschlians. Belief he states to be a primordial fact of consciousness, ultimate and unanalysable; but what is fundamental in it is Judgment (407, 423). If so, the author can hardly be attending to the judgment-aspect of Belief when he maintains that the only opposite to belief is non-belief (the absence of belief) and not "doubt" (422). He proceeds to argue that "belief should be coextensive with knowledge, coincident with truth," and that "a rightly regulated mind is one in which evidence is the measure of assent" (424, 425). In this connexion he quotes the well-known views of Huxley and Clifford. But he gives their view an explanation which to them would probably have seemed to explain it away: "Nor does the reasonableness of the conformity of belief to evidence imply that belief, and the life of feeling and action founded on belief, should be affected *merely by the strength and clearness of the apprehension of evidence.* They naturally will, and even manifestly ought to, be affected also by *the character of the object or content of belief.* . . . Many true and attainable beliefs are not worth our seeking after, or troubling ourselves as to what evidence there may be for them. Beliefs as to morals have claims upon us which beliefs as to lower concerns have not, and demand from us more anxious inquiry as to whether they are true or false. Belief in God should naturally so affect a man's whole view of the world and history, and so influence his whole life and conduct, and has also such immense significance for societies and nations, that a refusal to study the grounds of it with the utmost care and earnestness can only be regarded as inexcusable" (430).[1] Once let the *importance* of the belief, as here indicated, enter into and form part of the evidence for its acceptance, and we have inserted in the harness of the traditional "Natural Theology" the thin end of the wedge of "Pragmatism". On this account we turn again to the author's brief criticism of James's *Will to Believe* (397-399). The

[1] The italics are the author's.

main points seem to be as follows: (1) It is psychologically impossible to *will* to believe, *i.e.*, to force ourselves to do so by a mere effort. This is true but irrelevant, for "will" with Prof James is not, any more than with Schopenhauer, a mere subjective *effort*. (2) James has not shown that there are any cases where an "option," "genuine," "forced," and "momentous," such as religious belief is admitted to be, must be decided on passional grounds *because* it cannot be decided on intellectual grounds. This we believe to be true, though it is not easy to see the point of the objection that James has substituted "options of action" for "options of belief". (3) "The part which willing has in the game (of believing) is this: the mind can either will to follow along the paths on which the light of truth shines, and in which alone therefore right belief can be attained, or will to deviate from them, and so wander into regions of darkness and delusion". It is unfortunate that at this crucial point the author's language should be so metaphorical as to leave his precise meaning uncertain (399). The whole matter seems to us to lie in this question: Can there be any evidence without "will"? Is it not true that in every case of knowledge the "evidence" has to be *made* as much as *found?* "The will cannot force the mind to believe what presents to it no appearance of evidence." No; but it can "force" the mind to *make* the evidence. It is familiar to hear these "momentous" beliefs spoken of as "hypotheses": but a hypothesis which is not amenable to *experiment* is futile, as the elementary text-books tell us. And "experiment" is not limited to the "questions asked of nature" with respect to the causal connexion of physical events. Clifford's statement seems a mere platitude dressed in the garb of moral and intellectual virtue, *until* we have settled the various degrees and kinds of evidence which it is reasonable to expect in different branches of inquiry. Prof. Flint's book contains interesting contributions to this end; but had he investigated much more fully some of the questions which arise out of recent movements of real philosophical importance, he would have done better service even to the theologian.

S. H. Mellone.

Zur Einführung in die Philosophie der Gegenwart. Acht Vorträge von Alois Riehl. Leipzig: B. G. Teubner, 1903. Pp. ii, 258.

The *suasoriæ* which Dr. Riehl now prints under the attractive title of *Philosophie der Gegenwart* were originally addressed to a lay public, with the design in the first place of gaining for philosophy fresh well-wishers among the ranks of those whose vocation and training had lain rather in the direction of positive science. His book therefore offers something of an *eirenicon* in the quarrel or misunderstanding between natural science and the philosophy to

which it tended to be antipathetic. To his task of mediation Dr. Riehl adds an endeavour to appraise the living forces in the philosophy of the present which are shaping its outlook on the future.

In view of the short title it is something of a paradox, mitigated a little in the fuller style of the book, that the mission of philosophy in the present is determined to the extent that it is here by a masterful survey of its meaning and achievement in the past. It must however be conceded that Dr. Riehl justifies the extent to which his treatment rests on the unity and continuity of the development of philosophy throughout its history. To appreciate the significance of Dr. Riehl's thesis that while philosophy can only perform its function aright when in close *rapport* with science, it yet has its separate and sufficient work in the field of criticism and in the sphere of values, the public to which he primarily addressed himself needed certain reminders.

Philosophy once included the circle of the sciences. The severance was incomplete even so late as Descartes. The greatness of philosophers even more recent has depended in part upon their competence in *Forschung*. All this should make for reconciliation. On the other hand, modern philosophy has, at least since the dawn of criticism in its technical sense, been definitely confronted with science as something other than itself, and has more and more put the stress upon theory of knowledge and doctrine of values, and more and more, save for certain anachronistic survivals, declined from ontological pretensions running counter to science. This in Dr. Riehl's view should make for clearness in definition of jurisdiction. The relation is that of mother country and emancipated colony. Federation and not conquest is the policy of enlightenment. Prof. Riehl's view may be said to centre upon the significance of Kant for science as for philosophy, and that of Mayer for philosophy as for science.

Before such a public and in such a connexion there was naturally but little to say of ancient philosophy in detail. Dr. Riehl says that little acutely, happily, and according to knowledge. *Naturforschung* once was the whole of philosophy. It seems to follow that it must share the responsibility for the ontology which it now charges upon philosophy, for this is a heritage from the speculations in which philosophy and science were not two, but one. It was not until Socrates 'discovered the practical reason' that the cleavage between philosophy and science, soon to be aggravated by the emergence of theory of knowledge but never completed in the Greek world, took a definite character. The pronouncements of modern physics find happy parallels in the 'false dawn' of pre-Socratic speculation. The illustration of Heraclitus by Helmholtz' *dauernde Bewegungsformen und scheinbare Substanzen* is perhaps the cleverest of Dr. Riehl's 'modern instances'.

Even 'the Copernican change' of the Renascence, to adopt Kant's phrase literally, was not at first so decisively successful in

opposing philosophy to science and sciences relatively independent from it, that the need of 'a specialist of the general' could reasonably be doubted. We call Copernicus, who 'discovered a new star and set the Earth in the heavens,' a master of science. Good. And we call Bruno, who obtains not now for the first time a sympathetic treatment at Dr. Riehl's hands, specifically a philosopher. Also good. But the essential content of the teaching of the two is the same. So also the Cartesian philosophy meant at the first the physics of Descartes and only subsequently his metaphysics. It is only then with the first critical writers that the residual task of theoretic philosophy as a separate discipline becomes clear. Chimæras bombinant in the void have been extinguished. The sciences are coming less and less to admit of a synthesis and not at all of a 'synthetic philosopher'. But beside *Forschung* in its several departments there arises *Kritik* for which experience itself is the problem. Withal, side by side with the search for valid relations in the world of understanding, there is the shaping of ideals in art and ethics. Validity and the value which we put back of it are the problems of the dual activity of philosophy.

For Dr. Riehl *Aufklärung* and a critical philosophy are not discontinuous. The latter is the development and not the reversal of the former. The spirit of the illumination is embodied in Locke, who despite of anticipatory thoughts in Hobbes, and notwithstanding the fact that Hume is the first definitely to conceive of experience as 'a problem, not its solution,' must still be called 'the first critical philosopher'. Prof. Riehl has no polemic against the individualism and 'psychological view' of the traditional Locke and conventional Hume. He treats these writers as precursors of criticism as it appears in Kant and credits them with the points that they made as the great epistemologists that they are. He finds, *e.g.*, in Locke's account of substance the germ of a development rather than something to be answered. He limits the polemic against innate ideas to its original meaning, and shows that it never excluded the *intellectus ipse* of Leibniz' qualification,—that there are, as the phrase goes, 'intellectual elements' in Locke's theory. Again he finds in Locke's 'things themselves' the literary antecedent of the more famous *Dinge an sich*. All this doubtless belongs in a way to the view of Kant to which Dr. Riehl stands committed, but even if it be held to be onesided, it is an admirable tonic to the English student who knows Locke only through T. H. Green's General Introduction to Hume. It is in the need that there is to eke out Locke's Essay with the Newtonian influence that came too late for it to take account of, and in the fact that Kant took part in *Forschung* as well as produced a theory of knowledge, that Locke's shortcoming as compared with the greater German master is to be found.

So too Hume is a forerunner of Kant, an end only in the sense that he is a new beginning. In part his method of pure experience is a *reductio ad absurdum* of itself. In part it necessarily tran-

scends itself and leaves the last step in the critical development already reached, if still to take. Not that Dr. Riehl slurs differences. The points of Kant's advance on Hume are fully indicated. Of their difference in the way in which they construe the causal relation Dr. Riehl has a happy *instantia crucis*. An observer from a height at some distance sees through his field-glasses a troop at drill. He first sees the execution of the manœuvre, then hears the word of command. Can Hume explain the control of the subjective sequence of apprehension by the objective sequence of phenomena?

As to Dr. Riehl's general attitude towards Kant a review must appear belated. A simple reminder may serve here. That Kant, himself distinguished in the field of science, gave philosophy a jurisdiction in critique of experience, and founded a 'critical realism' in which the sciences could ground themselves, and that so he left us with specifically post-Kantian problems, constitutes the claim of this great thinker to the highest place in the roll of the mediators of philosophy and science. The derivation from Kant of a purely speculative idealism naturally finds no sympathy from Prof. Riehl. The criticism which must be the prelude to any metaphysic is the only metaphysic; the curtain is the picture.

It follows naturally then that, on the cognitive side as distinct from the practical, the movement since Kant which is of predominant significance has come from the scientist rather than the professed philosopher, though it enables the philosopher to take a step forward. The great discovery which Dr. Riehl attributes to Mayer, and which is a discovery, whether we accept Tait's strictures on this metaphysician or Dr. Riehl's eulogy of this *Forscher*, is the true answer to Hume. *Causa æquat effectum*. Conservation of energy elaborated as an hypothesis of physics and progressively verified in experience is the fact which precipitates critique and natural science into a harmonious whole, still of course exhibiting differences within it, but, for all that, a whole. With Mayer that step is taken in the scientific sphere which Hume left still to be taken in the critical development. By the test of quantitative equivalence of antecedent and consequent, we may, if we discriminate between *Auslösungen* and *Ursachen*, determine the difference between the causal sequence even of a rare type and the casual sequence even of frequent repetition. In 'the other' of philosophy the category which critique had rendered explicit has thus found its vindication in an unexpected way.

Whether the conception of energy can drive out that of matter and reign alone is a question for scientists. If it so far has not yet been solved in the direction of a triumph for Energetic, this fact implies a formal breach in scientific monism. But at least philosophy has been enabled by the principle of conservation of energy to establish, within definite limits and under definite conditions, that formula of Psychophysical Parallelism which con-

stitutes a principle of co-ordination for such modern epistemology as is *en rapport* with scientific naturalism. The formula is vindicated within its limited range against doctrines of interaction by the following reflexions: if Mayer's formula is correct, the system of energy is a closed one. But has consciousness a 'mechanical' equivalent? If it were a form of energy, its activity would draw upon and weaken or exhaust some other form of energy. Its cessation from activity would involve the emergence or augmentation of some other such form. The *experimentum crucis* makes against the conclusion that it is a form of energy, if, as seems to be established, the energy of the chemical brain-change is heightened, and not lowered with the passage from quiescence to activity of consciousness. Psychosis then is no form of energy.

Dr. Riehl is, however, careful to distinguish this result from its hypothetical extension in a *Panpsychismus*, which as he observes is a revival of an idea of Spinoza's, misunderstood and misapplied in severance from Spinoza's system. It is from the former positive formula, not from the latter speculative one, that Dr. Riehl, not perhaps without obligations to Avenarius, makes his last step forward in critical realism. The duality of an order which can only appear to me as psychosis and an order which might appear to an observer *ab extra* as brain-process but by me can only be thought of as such, is transcended in a conclusion to the identity of the real *Vorgang* which underlies the Janus-faced phenomenon. *Die Welt ist nur einmal da.*

In the remaining field of possible philosophic activity, that namely of ideal ends or values, Dr. Riehl is equally post-Kantian in his point of view. To any writer who completes his philosophy of cognition without reference to the philosophy of practice, the dualism between *is* and *ought* is apparently still to bridge. Dr. Riehl grounds history and moral disciplines in natural law, but life is in one sense more than knowledge, and the spiritual values which we live are subject to evolution no less than the physical world which we know. The link is apparently the prophet who transmutes knowledge into ideals, verities into verdicts and values, as well as transforms old values into new. This is apparently the significance of Dr. Riehl's insistence on the literal truth of the Socratic paradox, verified against all gainsaying by the life of Socrates. Knowledge embodied in the life of a *prophetes* is Virtue, and Virtue is that Knowledge. And the problems *solvuntur vivendo* under the guidance of the prophet for whose advent at each transitional epoch we must hope patiently. Such a teacher was Socrates, the *pädagogische Genius* in the history of philosophy. It is from this point of view that Nietzsche is so significant. He apparently gave the clue to Dr. Riehl's thought, though he is not the true prophet, in view of the instability of his own ideal and his own fluctuating estimate of successive values. He must be discriminated from Schopenhauer, since at least he taught no pessimism of disillusioned hedonism. But he failed to realise—

this in our view is one of Dr. Riehl's happiest flashes of insight—'that the true *Herrenmoral* of the autonomous will had been already discovered'.

It is then in a harking back to Kant and a fresh start from Kant that has been taken by our naturalists rather than our professed philosophers that the prospects for a living philosophy deepening and elaborating critique in sympathetic alliance with positive science have been rendered hopeful. The nineteenth century was one of achievement in philosophy, but we must look for its achievements not among the professors, but to Mayer, to Helmholtz, to Hertz. The divorce of science and philosophy must never occur again. And to experience, construed not as pure experience nor as something subject to the objection that it is mere phenomenalism, there links itself a *Lebensanschauung* grounded in its laws, interpreted for us by the great transformers of values. But we wait for our prophets. Nietzsche in especial must regretfully be held to have failed to satisfy the demands we make upon our prophets. But such in modern times pre-eminently was Goethe.

Dr. Riehl is not afraid to use fine language, and accordingly he expresses his fine thoughts finely.

HERBERT W. BLUNT.

The Reform of Moral and Biblical Education on the lines of Herbartianism, Critical Thought, and the Ethical Needs of the Present Day. By FRANK H. HAYWARD. London: Swan Sonnenschein.

"A RELIGIOUS and moral education," said Victor Cousin, "is the first great want of a people." Substantially this is the plea of Herbart in suggesting the formation of character as the end of education. But Herbart has a method to offer. The method is the formation of character through instruction. Herbart has no doubt as to the close relation of the intellectual to the moral. He holds that the mind as a whole can only mean the whole circle of thought. The will, therefore, can only be said to exercise itself over the materials gathered by the intellect, and can only be developed in connexion with them. The will is the real indication of character, and therefore the moral character is dependent on the whole circle of thought. This circle of thought, as he more than hints, can be built up by instruction. Hence the possibilities of education in such a system appear with a grandeur which is increasingly attractive to educationists.

Herbartianism accepts the position that definite instruction can influence the character, because "action springs out of the circle of thought". Hence the need for moral development by the presentation of "large unbroken masses of thought". Herbartians hold that ideas, much more than feelings, are the essential

prerequisites to the training of the will. It is the business of education to arouse interest by means of ideas. This is to be done by linking new ideas to old ideas—so that the reaction is duly considered and the apperceptive attitude progressive and duly considered. "Large masses of thought" can only be aroused by concentration of objects about some central stem.

Accordingly Dr. Hayward makes it his concern to link moral instruction with biblical stories, at certain stages, and to bring these into comparison with other historical stories. Thus he suggests the history of Joseph is extremely valuable for purposes of instruction, and at certain stages, but it must be viewed under three heads: (*a*) moral or religious; (*b*) historical, geographical, archæological; (*c*) literary. These different aspects of dealing with the subject, he suggests, afford "priceless opportunities of arousing interest". From the story of Joseph as a main link for concentration, Dr. Hayward passes to the life of David, but in connexion with it he thinks that the history of Alfred the Great should be taught. "There is much similarity between David and Alfred. Each is a nation's national hero. Each was a king. Each was good and great. Each had long struggles. Each was a fugitive and exile. Each had an important place, real or supposed, in literature. Each was a "harpist". Each died at the height of his power. Each ruled over a kingdom about as large as Wales, but with dependencies several times as extensive. Each handed on the kingdom to his son. Hence it is a most obvious thing to teach the history of Alfred in connexion with that of David."

Following this stage, the prophetical period of Hebrew history is to be taken along with the history of England (? down to 1660) with especial reference to biographical and literary matter. But, along with this twofold work, there should be definite lessons on such duties of citizenship as can well be treated, and also on other common duties of life. In the next stage comes the life of Christ, brought into relation with the contemporary conditions of Palestine. History is still to be taught, and ethical lessons are of vast importance.

The principle which especially underlies all this programme is that virtue can be taught. If so, there ought to be a scheme of instruction—and accordingly Dr. Hayward provides his scheme, with a view to embodying the results of the "higher criticism" of biblical contents, and adopting the biblical material for strictly pedagogic ends. There are undoubtedly many interesting suggestions in the course of the book, much that is ingenious, and much that is doubtful both for theory and practice. I do not think Dr. Hayward sufficiently realises in his treatment of the teachableness of virtue that we do not, after all, necessarily mean by "teaching," the giving of formal lessons.

No amount of knowledge of Herbartianism of itself would make a man a teacher. The wise person learns teaching by teaching. So the child acquires virtue by practising virtue. The stories of

Joseph and David, after all, can only be interpreted by the intellectual and moral consciousness of the child. On further inquiry, surely it would appear that *that* has been forming by the moral habits which he has gathered, and especially those actions which he has exercised more especially by his own choice. The Reform of Moral Education mostly comes about not by syllabuses and schemes, though these may be admirable when they are the outcome of the *experiences* of teachers, but reform rather comes from those teachers whose personality readily affects the moral attitude and habits of the children in his class—Arnold makes a moral Rugby and Thring a moral Uppingham, by inducing the environment which is fitting for giving scope to the self-active efforts which, sooner or later, from the individuals find their way into the current of good moral social habits in the school. The method that lies nearest to the personality of the teacher will have most moral effect. It is hopeless to expect every teacher to become a higher critic in theology—so as to give correct views on biblical matters. If every teacher accepted those views, and adopted, say, Dr. Hayward's Scheme of Instruction, it would only become in time the New Orthodoxy. But the passion for truth and for goodness comes not this way. The first thing is for teachers to recognise more than ever before the significance of their task, their possibilities of influence. The second is for public opinion to require from teachers such work, and such work only, as may make it practicable for each to be an effective influence on the individual child. Public opinion ought to condemn huge classes for the individual teacher, as a hindrance to moral teaching and the formation of character in the children. Fancy the moral effect of a teacher attempting to carry through the courses of lessons on the elaborate schemes of Dr. Hayward to huge classes of say sixty children! *Optimi corruptio, pessima.*

Further, I think a teacher should give of his best, and need very rarely indeed withhold the spirit of his best thoughts even from the youngest. Herbart himself says: "The child selects what suits him from what he reads, and judges the writing as well as the writer after his own fashion. The story must have one more characteristic, if its effect is to be lasting and emphatic: it must carry on its face the *strongest and clearest stamp of human greatness.*" It is necessary to protest against the tendency there is to run to excess in teaching *down* to children's capacity. Dr. Hayward, for instance, suggests that the life of Christ, if taught at all, should be taught systematically only in upper classes. "Joseph is intelligible to children, Christ is not." This seems strange pedagogy. It cannot be difficult to understand the Christ "who went about doing good," and in the strenuousness of his task "had not where to lay his head". It is so often urged that Christ had no philosophical system to propose, that it is curious to find that the lover of children, of the fields, the hill-sides, the flowers and of birds is incomprehensible. It is like the Froebelian excess that demands

silly, stupid rhymes, so as to reach the incapacity of childhood. It is necessary to refer the Herbartian to Herbart. "The whole look of a well-trained boy is directed above himself, and when eight years old his entire line of vision extends beyond all histories of children. . . . You will not find the boy's ideal in your own imagination, for that is full of pedagogic ideas, full of your experiences, knowledge and personal affairs."

There is need for Reform in all Education. There is no subject which is taught thoroughly satisfactorily in the elementary school —universally and in accordance with educational principles. But education is a whole, a complex whole. Moral training is not merely the outcome of didactics, but it is due to many influences —home and neighbourhood as well as the school. The methods of reform are a rising consciousness of the responsibility of adults, especially parents, to children. Yet, probably, on the didactic side, there is no education which has been more thorough in many cases than the religious education given by the mothers to their children and the moral education of the home life. The teaching of children in religious material, especially in the history of the noblest spiritual and social developments, will probably with the advance of general education reach deeper into the Church and the Home. The training to accuracy in thought and statement, the intelligent interest in some of the great things of the world, and above all a truer and more sympathetic instruction with regard to the grander personalities and simpler phenomena of our earthly environment, together with a race of teachers trained for their work, more alive to its intrinsic significance, more actively free from traditions (which the professional spirit of inquiry characterising other professions, say, surgical science, can alone give), together with properly considered conditions of effective influence (*e.g.*, numbers in a school class)—these things will make for the Reform of Moral and Religious Education. Reformed Syllabuses in accordance with the most eclectic Higher Criticism will avail little in comparison with what old Samuel Hartlib called "Reformed Schoolmasters". The generation in which these shall arise will above all things need freedom, and in all subjects they will need the most freedom in the moral and religious education. I agree with Dr. Hayward: Virtue can be taught. But the teaching implies well-equipped teachers. And just in proportion to the excellence of their equipment there is the less need for Dr. Hayward's scheme as a general proposal. But without such a high intellectual and moral equipment in the teacher, even the writer's interesting and sometimes happy suggestions are unavailing.

Dr. Hayward's book is written *fortiter in re*, but not *suaviter in modo*. The style, and often lack of style, will irritate; and what is unfortunate may deter some readers from giving the book its due consideration. There is much enthusiasm in it. It is a serious book, though oftentimes it lacks the dignity the subject-matter deserves.

The construction of the book reveals considerable irresolution—as to inclusion and exclusion. It is not clear, at times, whether the writer appeals to the managers of schools, teachers or the general public. He terms his own book "272 pages of arrogant audacity," although there are only 248 pages including the Index. So the volume gives a feeling of haste and a certain carelessness of production. But it is a real pleasure to add in speaking of Dr. Hayward's book that it embodies deep educational convictions, forcibly stated, well exemplified, and important for consideration.

FOSTER WATSON.

L'Étude Expérimentale de l'Intelligence. Par ALFRED BINET. Paris: Schleicher Frères et Cie, 1903. Pp. 309.

THIS work marks, in the opinion of the author, a new departure in the experimental study of mind. Its methods of experiment are indeed those of modern psychophysics, but the emphasis is laid, not so much on the measurement or tabulation of the results obtained, as on the subject's account of how these results are arrived at, drawn out by judicious questioning on the part of the operator. The processes which are studied belong without exception to the higher types of mental functioning,—the mode of ideation, the relation between word and idea, or between image and thought, the nature of abstract thought, the varieties of mental type which are brought out in the description of objects, the construction of phrases, the copying of models, etc., etc. A great variety of tests are employed, and M. Binet is emphatic upon the necessity of co-ordinating many tests in order to determine either the mental type or the degree of development of a given individual. Among these tests are the writing of series of twenty words, as they occur to the subject, the associating of an idea with a word uttered by the experimenter, the forming and modifying of an image or mental picture at the suggestion of the operator, the writing of series of phrases, the description of objects, repetition of numbers, learning verses by heart, appreciating spatial and temporal positions and intervals. In all cases the significance of the results is tested by a careful inquiry into the idea or thought of which the word written or the movement made by the subject is an expression.

In the main the work is a study of two broadly contrasted types of mental character. Binet's older subject, M., is of a practical, matter-of-fact, unreflective nature; the other, A., is imaginative, given to reverie, to thoughts detached from her everyday life. One of the most interesting portions of the work is that which analyses the series of words given by M. and by A. respectively, with regard to the kind of idea underlying each word. (1) The more imaginative A. has a greater number of words of which she afterwards can

give no account, "unexplained words," — pointing to a greater mental automatism, inertia, readiness to be distracted. (2) The number of words relating to present objects, or to the subject's own person, is much larger for M. than for A.,—showing a greater tendency in the former to occupy herself with the actual world about her. (3) Similarly, M. has a greater number of words derived from recollections of actual facts or experiences, and while the memories of M. refer almost wholly to recent experiences, those of A. refer to more distant events. M.'s memory-world is simply a prolongation of the actual present world, from which she is unable to cast herself loose. (4) Of *abstractions*, on the other hand, *i.e.*, vague, indistinct ideas, referring to an object, but not to any particular individualised object, — and of *imaginations*, fictitious experiences, A. has by far the greater number. Corresponding to this difference in mental contents is a difference in vocabulary; thus M. gives nothing but substantives, while A. has also a few verbs, adverbs, adjectives: in social value the words of M. are commonplace, ordinary; those of A., in many cases, unfamiliar, far-fetched. Since the environment of the two girls was identically the same, these facts point to the influence of selective thought, even at this early stage of life (the subjects were twelve and fourteen years of age). Where the associations by which the mind passed from one idea to another could be recalled, those of M. were found to be mainly through contiguity in space—external; those of A. through resemblance, or logical connexion—internal. Hence in M. an entire absence of spontaneity or originality, in contrast with A.

The further tests at once confirm and give precision to the first. The imagery of M. is proved to have far greater intensity and liveliness than that of A., showing that the power of creative imagination does not necessarily imply a great intensity of mental images in other domains. In M.'s case the effacement of the images is rigorously a function of the time elapsed since the actual experiences, whereas in A.'s there is much greater irregularity in this respect. Again (ch. ix.) A. proves to have little or no power over her mental imagery,—she cannot represent things "to order". According to her own account, it is chance that dictates what she is to see; whereas M. is able to realise any suggested representation, whether the idea comes from herself or from M. Binet. The succession of images with A. is extremely rapid, varied, disconnected,—like a series of "dissolving views,"—that of M. monotonous: she is able to see what she pleases, but the image does not change, unless she herself wills it to change. The phrases written by M. (ch. x.) have *les pieds par terre*, and represent either very recent memories or reflexions on recent facts, while those of A. are poetical, imaginative, picturesque. In their description of objects, pictures, etc. (ch. xi.), M. belongs to the *descriptive* type: she gives a series of minute observations upon the object before her, without reasoning, selection, imagination or feeling: while A. must be classed here also

as an *imaginative ;* she gives fewer details, but these are subordinated to some general idea, by which their selection is determined. In the more technical tests on Attention, Reaction-Time, Memory, A is invariably inferior in accuracy, speed, or both, except when the case is one of *pure memory :* as a plastic force her memory is not more feeble than that of M., what is more feeble is the power of *voluntary, i.e.*, strained, attention. Thus she recalls a number of detached words as well, a verse of poetry not nearly so well as M. Her sense of position or length of interval in time is superior to that of M., with whom *per contra* the sense of spatial position is more accurate,—facts pointing again to the predominance in the one of the inward-turning, in the other of the outward-facing life. From this point of view the work is a valuable contribution to individual psychology.

From the standpoint of general psychology there are some interesting suggestions. The fourth chapter contains a curious renunciation from the empirical side of the Association of Ideas : " The existence of themes of thought (as brought out in the experiment of words written at random) is inexplicable by the automatism of associations ; . . . that a theme may develop, there must be an appropriation of ideas, a work of choice and rejection which far surpasses the resources of association. The latter is intelligent only when directed ; left to itself . . . it can produce only incoherence, as in the words of a maniac or the kaleidoscopic images of reverie ". The whole tendency of the work is to lower the value of the *image* in mental life. Thus in chapter vi. it is shown that a precise thought may be formed on hearing a word without any appreciable image, even an image of the mere word, arising. The attempt to form an image often comes after the precise thought itself, and often fails in its end ; it would be impossible from the mere images to reconstruct the thought. " The image is only a small part of the phenomenon to which the name of thought is given : the facility with which one may describe the mental image . . . is what has caused illusion as to its importance " (p. 103). It is a curious irony of fate that actual experiment should have led to the distinction—in an empirical school—between an intellectual *act* (understanding, comparing, affirming, denying, etc.) and an *image* or representation. " Thought is an unconscious act of the mind, which has need of words and images to become fully conscious. But, however hard it is to represent to ourselves a thought without the help of words and images, and it is for this reason only that I call it unconscious—it exists none the less, it constitutes, if we would define it by its function, a directive, organising force " (p. 108). In another chapter (ch. viii.) the nature of abstract thought is considered in the light of this new material : where, on a word being given, either an image does not rise at all or does so only to pass immediately out of the mind, we have not ' abstract,' but ' indeterminate ' thought, a thought arrested in its development. M.

Binet has grave doubts as to the existence of Huxley's 'composite' or 'generic' image: even of very familiar persons his subjects had merely a succession of quite definite images, which did not fuse together (*cf.* p. 149). Another form of the general idea is where "the image is not precise, and it is its lack of precision which prevents our relating it to an anterior event, or particularising it". Such general *images*, however, do not constitute general *thoughts*. M. Binet would add a new word to the vocabulary of theories of abstraction,—"Intentionism". "The thought of the general comes from a direction of thought towards the totality of things, it is, taking the word in its etymological sense, an *intention* of the mind" (p. 154). These views are of course far from unfamiliar to English readers, it is their setting that makes them interesting.

J. Lewis McIntyre.

VI.—NEW BOOKS.

Experimental Psychology and its Bearing upon Culture. By G. M. Stratton. New York, The Macmillan Co., 1903.

This work is an appeal to the general reader in philosophy. Its aim is "to present the character and value of the laboratory psychology, especially as bearing upon our moral and philosophical interests". A brief sketch of the history of the attempt to apply experimental methods to the study of mind is followed by a chapter on the function of experiment in psychology, and one on the possibility of mental measurement. In the later chapters such topics are discussed as—the Unconscious in Mind, Illusions, the Perception of Space and of Time, Æsthetics and the Relation of Mind to Body. The conclusions in each case are based upon experiments described, and are such as uncontrolled introspection of itself could not have verified. Perhaps no very striking conclusions or suggestions are reached, but the evidence given is always full, and the questions are discussed fairly and from different sides. Mr. Stratton decides in favour of unconscious factors in mental life on the ground of familiar experiments on discrimination. "If we compare 100 with 102 grammes, we find that they give absolutely indistinguishable intensities of pressure; so too if we compare 102 grammes with 104." But "the first and third weights are under suitable conditions clearly distinguishable. And from this we may assure ourselves that the sensations arising from 100 and 102 grammes are really different, although the difference is imperceptible. For, if they were identical they would behave alike." Neither this nor any other instance given seems able to bear the interpretation put upon it. No sensation has ever an absolute value in itself as this theory supposes. The transition from 100 to 104 conditions a *feeling* which is not present in the other cases, and it is by this feeling that we are guided in our "discrimination". We need not suppose the existence of "dim sensations, subtle variations in the strength and quality of certain constituents, which, minute and imperceptible though they be, are sufficient to destroy the equilibrium and produce a transformation of the whole state". The classification of Illusions in the sixth chapter would perhaps hardly stand the test of logic;—the classes are (1) illusions from spontaneous sensations; (2) illusions from stress of attention; (3) illusions due to fixity of interpretation or "custom". But all alike are ultimately explained as errors of interpretation, *i.e.*, as mental in their origin, differing from perceptions only in their disagreement or want of harmony with the body of our experience as a whole. Even those illusions which we cannot correct in sensuous experience, *e.g.*, the Poggendorf, point to "deep-seated mental habits, lying beyond the control of our will, and even to a large extent beyond the influence of logical evidence" (p. 117). Perhaps here

also too great stress is laid upon the mental factor; but the chapter is interestingly written.

Considering the general tendency of the work, it is surprising to meet statements recalling a much more popular psychology, such as that the mind "receives only indirect reports of what is going on without," as if the mind were somehow shut up within the brain: again wonder is expressed "that we can accurately tell not only the direction but also the ever-changing *distance from which sensations come through the rods and cones of the eyes*".

The chapters on Space-perception (chapters vii. and viii.) contain an account of various experiments on the blind, and of others on a normal subject who wore lenses which caused the image on the retina to be "upright" instead of "inverted," and the like,—showing (1) that touch and sight alike give a knowledge of space; (2) that the harmony between visual and tactual space is entirely a result of experience; and (3) that what we call the experience of "real" space is "a kind of idealisation or purified experience obtained after sifting out and discarding those perceptions that are practically unreliable". Two chapters on Memory (chapters ix. and x.) suggest a phase through which psychology is passing, that of the decline of the *image*. Stress is no longer laid on the substantial images of memory, so much as on memory as a function, an activity. Mr. Stratton regards "conscious recall" as a relatively unimportant fact in memory; in dating an event, it is rather "a feeling for the intelligibility of the memory-system as a whole—a sense of the impossibility of understanding our past unless its order is thus and so," that determines us,—not the conscious recall of the position of the event in our lives and its accompanying circumstances. Mere persistence of an act or of the underlying disposition is far more important, and it is this persistence that determines development and that is the source of personal continuity. "Instead of our being the slaves of what we recall, our character itself largely determines what shall be remembered and what we shall forget": and at the higher stages of mental life memory is replaced by insight and reason. The whole discussion is valuable. Chapter xi., on Imitation and Suggestion, also reveals in a striking way the author's tendency to enhance the import of individuality, mental activity, selection, as against the mere passive recipiency of sensations or images (suggestions). The following chapter, on the Enjoyment of Sensations and their primary forms, treads more debatable ground, but here also Mr. Stratton's guidance is pre-eminently safe. Apparently simple explanations, such as that of "muscular sensations," are rightly rejected, and a number of the complex conditions that enter into play are pointed out.

In chapter xiii., while considering the various theories as to the connexion between mind and body, Mr. Stratton rejects parallelism as inconsistent with sense-perception and evolution, and decides for some form of "interaction," without prejudice to the law of Conservation of Energy. "The influence of the mind might be, not to add to the energy of the brain in any way, but simply to redispose it, to change the form of the energy already there." One may doubt whether this conception will prove satisfactory to the physicist, or whether it is consistent with the main conclusion of the work itself, *viz.*: "The ascendant view (of the soul), and the one that seems to me by far the more convincing, is that sensations and judgments and memories, and all things else in our mental life, are to be conceived, not as self-complete and relatively independent things, but as acts of a living being". "We do not have to choose between persons and law, but personality itself is

the most perfect example of law." The work admirably illustrates the fact that one may be an experimental psychologist and yet hold the most spiritual view of the nature and worth of the soul.

J. Lewis McIntyre.

A Study in the Psychology of Ethics. By David Irons. Edinburgh and London: Wm. Blackwood & Sons, 1903. Pp. xviii, 176.

In this volume Mr. Irons makes a timely and able contribution to his subject. His treatment is thoroughly methodical and workmanlike, and, though at times rather abstract and unattractive in style, has the important virtues of clearness and brevity. The discussion falls into two halves. In the first the author seeks to establish positively and critically a certain view of the nature of Emotion, and analyses the various kinds of emotion, with their conditions and effects. The analysis of the emotions shows that they presuppose certain active principles or tendencies, and from this result he proceeds in the second half of the book to develop in broad outline a view of man's active and moral nature generally.

With Mr. Irons's general view of the nature of Emotion (in which, by the way, he seems to have the support of Prof. Stout's *Manual*) the readers of Mind are already familiar. He has here revised and expanded his argument, but although he states his case forcibly from his own point of view, it is not likely that he will produce much conviction among the adversaries, partly because he does not seem to do full justice to their views. His positive contention in chapter i. is summed up as follows: "Emotion is not only introspectively distinct from cognition, pleasure-pain, and conation, but has, in addition to its unique character as a conscious fact, definite conditions of its own and other features absolutely peculiar to itself. It is, therefore, unanalysable and irreducible, and must be regarded as an ultimate and primary aspect of mind" (p. 39). But to this conclusion it still seems possible to object, first, that a mental state may have a peculiar character and definite conditions of its own, *and yet* be complex and capable of analysis; second, that even if it be shown—as Mr. Irons is mainly engaged in showing in chapter i.—that emotion is different from cognition, pleasure-pain, etc., *taken separately*, this does not go very far to prove that the emotional state is not a complex of such elements taken together. Mr. Irons follows up his positive argument with an examination of "Current Theories of Emotion" (chap. ii.). He repeats his criticism of James's theory, but one cannot help feeling that he still fails to do it justice. *E.g.*, he still objects that the identification of emotion proper with organic sensation "reduces emotion to a form of cognition," whereas it is surely evident that the sensations in question are, *as constituents of emotion*, "anoetic". In chapter iii. Mr. Irons analyses in a most careful and painstaking way the various kinds of emotion and the species that may be distinguished within each kind. Naturally there is much in this detailed analysis that might be discussed, but perhaps the most important point to notice is that Mr. Irons seems to confine emotion almost exclusively to the higher levels of mental life, and to make it depend too much on intellectual processes. He had already, in fact, asserted that "every emotion presupposes a judgment by means of which the situation [or object] is brought under a general category" (p. 16). And now we find it stated, *e.g.*, that "while actions of rejection or avoidance may be developed as instincts at a low stage of mental development, the emotion of repugnance depends upon a sense of what is 'natural' and the reverse. An object cannot possibly appear as repulsive, unless it is viewed in its

relation to some system or order, however dimly that may be conceived" (p. 101).

The point is worth emphasising because it is of emotion at these higher levels that Mr. Irons can argue in the second half of the book that it presupposes certain natural impulses or active tendencies from a perceived relation to which the object of the emotion derives its emotional significance, *e.g.*, we are angry when we see some particular activity of self-assertion interfered with. Having shown in chapter iv. that such primary (and non-hedonic) impulses must be assumed, Mr. Irons proceeds in chapter v. to examine them more in detail, and then to argue in his final chapter that the regulation of all these impulses, and therefore of the active life as a whole, depends upon a supreme controlling impulse, *viz.*, the moral impulse to realise an ideal of worth. A fault of this second half of the book, and one which makes criticism difficult, is that the argument is too briefly and rapidly developed. Especially is this true of the last chapter, in which the author touches in a rather inadequate way upon a number of fundamental ethical questions. Consequently it is not easy to know exactly what the final position of the book amounts to either in terms of psychology or of ethics. *E.g.*, the moral impulse seems to be sharply separated from Reason, so sharply indeed that one suspects that the latter notion is interpreted in a rather narrow and external sense (*cf.* the reference to Hume on p. 139). And yet the author's ethical theory seems not to be so very different in its outcome from a Self-realisation theory like Green's, which would take Reason for its watch-word. And from a psychological point of view one feels that the author operates too widely and loosely with the notion of natural impulses or active tendencies (like James's "instincts"). So long as he is simply opposing psychological hedonism—and his whole line of argument combats it very effectively—this vagueness is of less consequence. But on the constructive side it is a defect that makes itself felt, although no doubt the special interest in the psychology of emotion with which Mr. Irons entered on his inquiry may justify his method.

H. Barker.

History of Philosophy. By William Turner, S.T.D. Boston and London: Ginn & Co., The Athenæum Press, 1903. Pp. 674.

The clear type of the Athenæum Press answers well to the clearness of thought and arrangement which this work displays. It is a handy volume of reference. The author is apparently a Roman Catholic priest. A history of philosophy cannot be composed except upon some groundwork which the writer himself holds. Dr. Turner evidently has his preferences. He prefers the philosophy of the great schoolmen of the thirteenth century. But a spirit of kindliness and fair-dealing pervades the work. No school of thinkers is treated with contempt. There is no bitterness in the book. Hegel is well appreciated, and a kind word is found for Spinoza, for Abelard, for Scotus Erigena. To Hobbes Dr. Turner scarcely does justice, either to the intellectual strength, or to the clearness of thought and style which marks that Titan of English philosophy. Hobbes's use, or rather misuse, of terms comes not from any haziness of conception, as Dr. Turner rather insinuates: his terms are the exact expression of his audacity and originality. But on the whole the good thing about Dr. Turner's book is its scholarly justice and comprehensiveness. Beginning with Egyptian sun-worship, and ending with pragmatism, it recognises the importance of every phase of thought that the human mind has gone through. The author does not believe—

can any one seriously believe?—that the progress of philosophy has been "a triumphal march from victory to victory, through province after province of newly acquired truth, without a single reverse, without ever retreating from territory once fairly won". A straight line is far too simple an expression for the mazy march of philosophy.

The History of Scholastic Philosophy from Erigena to Aquinas is now an optional subject in the Oxford Final Schools. This work would well serve any one who wished to take up that subject. The account given of Erigena is singularly lucid and interesting. A feature in the book is the "Historical Position" assigned to each great writer, showing his influence in determining the course of speculation. The Historical Position of Erigena is thus described: "He was, without doubt, the most learned man of his century, he was the first of the representatives of the new learning to attempt a system of constructive thought, and he brought to his task a truly Celtic wealth of imagination and a spiritual force which lifted him above the plane of his contemporaries,—mere epitomisers and commentators. His philosophy has all the charm which pantheism always possesses for a certain class of minds. It is subtle, vague, and poetic. When we come to examine its contents and method, we find that it is dominated by the spirit of Neo-Platonism. Through the works of Pseudo-Dionysius and Maximus, Erigena made acquaintance with the teachings of Plotinus and Proclus; and when he came to construct his own system of thought, he reproduced the essential traits of Neo-Platonic philosophy,—pantheism, the doctrine of intuition, mysticism, and universal redemption. The work *De Divisione Naturæ* was condemned in 1225. Its heterodoxy is undeniable; yet we cannot doubt the sincerity of Erigena's devotion to the truth of Catholic dogma. He was, as Anastasius, the Roman librarian, described him, *Vir per omnia sanctus*. Perhaps his attitude towards dogmatic truth is best described in the words of Gale, who first published the *De Divisione Naturæ*: *Potuit ergo errare; hæreticus esse noluit*."

JOSEPH RICKABY.

Aristotle on Education. Being Extracts from the Ethics *and* Politics. Translated and Edited by JOHN BURNET, Professor of Greek in the United College of St. Salvator and St. Leonard, St. Andrews. Cambridge: At the University Press.

The passages rendered in this volume are taken from Books I.-III. and X. of the *Ethics*; from Books VII. and VIII. of the *Politics*.

In the Prospectus of the series in which this book appears, we are told that "care will be taken to combine a high standard of excellence with adaptation to the practical needs of those for whom the series is intended". The series is designed, we are further told, to meet the needs of pupil-teachers and candidates for certificates. As to the needs of pupil-teachers, and the students in the Elementary Teachers' Training Colleges, such a book as this would be a hard nut to crack. The high standard of excellence however aimed at in the series is undoubtedly more than maintained by this volume. Indeed for the student in training for Secondary School teaching who has already had a fair grounding in Philosophy this work will be excellent. We do not doubt, further, that many philosophical students will find it valuable reading for the useful hints as to the comparison of the main positions of Aristotle and Plato, especially when Prof. Burnet states his views of the essential unity of the two great Greek thinkers on fundamental points. Prof. Burnet has done a great service to the subject of Education by his critical exposition

of Aristotle's educational principles. The service is all the more pronounced, because the mastery of his book will involve some preparatory philosophical training and due application if the student is going to make the most of it. It is precisely this type of work that is wanted to stimulate the would-be teacher, at an advanced period of his training. For the relation of Education to Ethics on the one hand and Politics on the other (if Ethics and Politics are taken in the Aristotelian meaning of the terms) is as much a problem of the present age as it was a problem for Aristotle. The study of a book like this takes us to the root of the matter. Aristotle's treatment is not only important from the mastership in thought which he has exercised over the mediæval and modern philosophers, but also from the significance of his actual answers to the problems raised. Prof. Burnet saves the student from searching through Hatch and Welldon to collect Aristotle's passages on Education. He translates, and where necessary expounds the passages, gives interesting and enlightening notes, and keeps an eye on the comparison with Plato, and he does all this with the keenness and attractiveness of a scholar. Further, he shows that Aristotle has a real and direct meaning for present-day educational ideals. No one can follow the significance of the idea of the highest aim of education as the preparation for the right enjoyment of leisure without recognising, as Prof. Burnet suggests, that the Aristotelian Gospel of Leisure does not ordinarily receive its due attention in the modern reaction from a strenuous Gospel of Work. We fall back on mere excitement and amusement. With a scholar's enthusiasm, he assures us: "It is from the Greeks that we can best learn the cause and cure of these ills". Thus it is not only the teacher who is a classicist who will welcome Prof. Burnet's book. It is simple justice to say that this little book has a message quite as direct and significant to the teacher of science and of technical subjects as to the classicist, if he takes a broad view of Education. Moreover, Prof. Burnet writes in a direct, simple, terse style which draws the attention to the subject-matter, and keeps the sense of effort and labour expended on his translation in the background. It is an excellent subject of study for the senior student in the subject of Education.

FOSTER WATSON.

Aristotle's Psychology: a Treatise on the Principle of Life. De Anima and *Parva Naturalia.* Translated with introduction and notes by W. A. HAMMOND, M.A., Ph.D., Assistant Professor of Ancient and Mediæval Philosophy in Cornell University. London: Swan Sonnenschein, 1902. Pp. lxxxviii, 339.

Prof. Hammond's first aim is to supply an accessible version of the tractates known as Aristotle's *Parva Naturalia.* He adds the *de Anima* that 'English readers' may possess the whole of Aristotle's psychology between two covers. That he quaintly also claims to have served 'research,' and specifically that of the future writer of 'an adequate history of psychology,' in that he has increased the available 'primary sources,' must be set down to the score of amiable delusion.

The prelude to Dr. Hammond's versions has apparently in part seen the light in the shape of magazine articles. It is painstaking enough, and, if we take it as no more than an introduction to a translation, it is on the whole adequate.

The translation is of very variable quality indeed. The English reader who receives, through a medium not always to be styled the diaphanous, the matter without the form of Aristotle's cryptic utterances, will perhaps

be as often edified as puzzled or misled. The latter events are, however, one may venture to think, not rendered sufficiently exceptional. *E.g.*, 426, *b*, 26, where we trust we do not wrong Prof. Hammond in suspecting a gross blunder. Or again, 427, *a*, 8: 'it is not possible for even the forms of experience to undergo these opposites, if sensation and thought be such forms'. Or once more 429, *a*, 20: 'it is the nature of thought to preclude and restrain the element that is foreign and adjacently seen'.

The *de Anima*, however, is so well served with aids, that even the English reader is relatively independent of Prof. Hammond's guidance. There are other crutches after all. What then of the *Parva Naturalia*?

Here too Dr. Hammond is quite often sound and lucid. But he is also far too frequently obscure or unsound. If we look even hurriedly and superficially at the *de Sensu*—one of the treatises for which Dr. Ogle's learning is not available—we may note 440, *a*, 5 *sq.*, 444, *a*, 1 *sq.*, for mistranslation; 446, *b*, 10 *sqq.*, for obscurity to the verge of the unintelligible. In cap. i. alone, there is a confusion of 'animal' and 'living creature' repeated; there is a maltreated σχέδον, 436, *a*, 10; there is a suspicious 'individually,' *ib.*, *b*, 12. In 446, *a*, the more than reiterated 'excessively small' in translating ὑπεροχή is unhappy. The 'were' of 438, *a*, 28, and the 'how far' of 448, *b*, 7, are also improper, each in its kind.

It would be no difficult task to furnish a like list for other treatises, *e.g.*, for that 'On Dreams'. Now such slips taken singly are—some of them at least—of trifling enough significance. But if cumulatively they drive us with some frequency to the Greek in order to help out the English, what becomes of Dr. Hammond's 'English readers'? Where original and version reciprocate assistance, we have the time-honoured 'crib'.

HERBERT W. BLUNT.

Heredity and Social Progress. By S. N. PATTEN. New York: The Macmillan Company; London: Macmillan & Co., Ltd., 1903. Pp. vii, 214. Price $1.25.

The problem of this little book, so far as the reviewer is able to understand it, runs somewhat as follows. There is a constant diminution of natural returns, due to the spread of population, the denuding forces of nature, etc. Even wealth and the products of wealth are impermanent; very little of our material environment has come down from the past. How, then, is progress possible? Only in this way: that the 'social surplus,' the temporary product of conscious effort from year to year, be transformed into permanent mental traits,—in biological language, that acquired characters become natural.

The problem is attacked from four directions. Progress must be regarded as starting, not from a deficit, as current biology and classical economics teach, but from a surplus. Human progress moves, not by addition to the elements of cell life, but by differentiation. Education must be brought to bear upon acquired characters: the one type or sex should be educated along lines on which a mere awakening suffices for the other. Reform should be directed, not towards strengthening the strong, but towards helping the weak.

"The principles here enunciated," says the author, "have not always been clearly seen by me." They will certainly not be clearly seen by the reader. The whole book rests on a crude parallelism of the biological and the sociological, and some of the arguments are fanciful in the extreme. "A brain is thus an enclosed ovary. . . . The enclosed ovary

is of the opposite sex to the exposed ovary, and hence beings manifest mentally the characteristics of the opposite sex from what they are physically." "Idealism is the activity of a disrupted despecialised centre." "Sensation is the utilisation of disused motor organs for the purpose of receiving impressions." "Civilised men are good thinkers, the women of their race have strong wills: and education must give decision to men and clear thought to women."

The author may be doing good service by challenging accepted dogma. But one cannot resist the idea that in many paragraphs he is writing simple nonsense.

E. B. T.

Existence, Meaning and Reality in Locke's Essay and in Present Epistemology. By A. W. Moore. Chicago: University Press, 1903. Pp. 25.

Though there are many things to admire in Mr. Moore's essay, his mode of presentation is not one of them. He has too much the air of conducting a clever disputation with Locke, Kant and Prof. Royce, a disputation in which all the transitions are slurred, his opponents' replies conveyed by hints and allusions, and the drift of his own argument concealed until half-way on in the essay. Not for the first time do we trace the baleful influence of Mr. George Meredith on philosophical exposition. The main problem of the essay is to be discovered in an unemphatic sentence on page 14: "It would seem that the root of the central difficulty in present logic might be stated as the failure thus far to work out the implications of the thoroughly teleological and functional idea which it has accepted from modern psychology". To this working out the present essay is a very interesting contribution. Its chief conclusions are that reality and truth are not static and immutable, but always have reference to the needs and interests of the subject; and that thought has as its function not so much the representing of reality as the creating of it. Such speculations as these undoubtedly tend in the right direction. The idea of the creativeness of thought, in particular, has a great future. The only danger is lest those who are pushing forward on this path should tend to forget that thought, however creative, cannot create out of nothing; and that objective reality, though not at all static or immutable, sets definite limits to all human creative activity.

H. S.

Biographic Clinics. By G. M. Gould. Philadelphia: P. Blakiston's Son & Co., 1903. Pp. 223. Price, $1.00.

The main thesis of this little book is that the chronic ill-health of De Quincey, Carlyle, Darwin, Huxley and Browning, "by whatever name they described their complaint, headache, vertigo, biliousness, dyspepsia, apathy, misery, was closely and inevitably consequent upon use of the eyes in reading and writing, and was relieved by stopping such use," and was further, so far as the recorded symptoms allow us to judge, the direct effect of eye-strain. The reader's first impression is, of course, that the writer is a specialist and is riding his specialist's hobby to death. The 'clinics' are, however, carefully and skilfully worked up; the diagnoses are made cautiously, and always in the light of concurrent evidence from the author's practice; and the reviewer's final verdict may be stated in the author's own language. "This theory is at least a working hypothesis, and as there is admittedly no other scientific ætiology of these

affections worth consideration, and no cure that cures, it behoves the entire profession to test the hypothesis most seriously and vigorously." Whether or not these five men of genius were suffering simply and solely from asymmetrical astigmatism, they undoubtedly showed the organic symptoms that follow from that functional disorder. And the writer's advice that every one who is steadily using his eyes should have them examined periodically, under mydriasis, by an expert refractionist—not by the 'refracting optician,' who sells spectacle lenses—is eminently sane.

E. B. T.

Ancient European Philosophy. By D. J. Snider, Litt.D. St. Louis: Sigma Publishing Co., 1903. Pp. 730.

Mr. Snider, with whose writings I have no previous acquaintance, but who appears to be a most voluminous and versatile author, treats of Greek Philosophy in this bulky volume much in the spirit—and the rather cryptic style—of Hegel. Readers who care to watch the stretching of historical fact upon the Procrustean bed of the triadic 'dialectical process' will find in this volume the kind of thing they like; for my own part, it seems to me that Mr. Snider fails, in his anxiety to make history confirm his speculative metaphysics of the 'world-process,' to grasp the real significance of Greek Philosophy as a stage in the evolution of reasoned science. He appears, too, very imperfectly informed of the important additions to our knowledge, especially of the earlier Greek schools, which have been made in recent years by such scholars as Diels, Bäumker, Burnet and Tannery. And where, might I ask, did he learn the really astonishing fact that Aristotle identified the "essence of being" with *νοήσις νοήσεως*?

A. E. Taylor.

Opuscules et Fragments Inédits de Leibniz extraits de la Bibliothèque royale de Hanovre. Par Louis Couturat, Chargé de Cours à l'Université de Toulouse. Paris: Alcan, 1903. Pp. xvi, 682.

The present collection of texts is, in the main, supplementary to M. Couturat's *La Logique de Leibniz*, which has already been noticed at length in Mind (N.S., No. 46). The importance of the new manuscripts may be gauged by the reconstruction of Leibniz's philosophy to which they have led their editor. The editing, as far as can be judged without seeing the MSS., is unusually careful; the changes and corrections made by Leibniz are noted, from which (as is pointed out in the Preface) it becomes possible to watch the "passionate and almost dramatic" development of his thought. The Preface contains an eloquent appeal to the International Association of Academies, which has undertaken to make a new edition of Leibniz, not to repeat the error of publishing only a selection. In this respect, what M. Couturat says is most weighty, and ought to command the assent of all Leibniz-students. So many of his fragmentary attempts have been found to contain the germs of important subjects, that no editor can lightly assume the responsibility of rejecting anything. Also the very brief notes, which were written down in odd moments (once, at least, on the back of a hotel bill), contain often, as M. Couturat points out, very clear and yet very condensed statements of his views on fundamental points; moreover they are apt to concern real difficulties in his system, and to face these without the tiresome verbiage of piety in which he clothed his public

utterances. Such fragments, therefore, are most specially worthy of publication.

It is also urged in the Preface that no classification except a chronological one should be adopted. Certainly the habit of divorcing Leibniz's mathematics and philosophy is unfortunate—indeed, it would seem, more generally, that the modern practice of separating these two studies is a disaster to both. And in the case of Leibniz it is pointed out that his thoughts were so encylopædic, and so dominated by the attempt to bring all sciences within one system, as to make all classification by subjects necessarily a mutilation.

The body of the work contains much matter of the highest interest in regard to the grounds of Leibniz's views; and a good deal of what is now published for the first time seems at least equal, in philosophical importance, to anything in previous editions. This applies especially to the work called *Generales Inquisitiones de Analysi Notionum et Veritatum*, written at the same time as the *Discours de Métaphysique*. This work oscillates between Philosophy and Symbolic Logic, making the interconnexion of the two quite remarkably visible. Also one sees Leibniz apparently thinking of some of his main ideas for the first time, trying and testing them. Notably the theory of contingency as infinite complexity results very naturally from the purely logical test of the true as that in whose analysis there are no contradictory ingredients (p. 370 ff.); where analysis can be continued indefinitely, the test becomes inapplicable unless by a mind which can complete an infinite process. The notion of the individual developed in the correspondence with Arnauld seems also to have its origin in Symbolic Logic (*cf.* p. 375 ff.).

The book ends with the "Pacidius Philalethi" in full, of which fragments were published by Gerhardt. This is an important dialogue on motion and change, written in 1676, deducing from Zeno-esque arguments such conclusions as that space is not composed of points and that motion is a kind of transcreation, and ending with something very like occasionalism. The difficulties in the notion of change are admirably stated.

It is quite impossible to do justice to the many important matters contained in this collection; on Symbolic Logic and on the indefinables of philosophy, especially, much new light is thrown by M. Couturat's labours. But his own work on Leibniz's Logic has so admirably expounded the conclusions which follow from the texts, that there is no need for the reviewer to dwell upon this subject further than to say that, in my opinion, the new material compels the acceptance of many of M. Couturat's most startling conclusions, and enables us (what was impossible before) to form a fairly clear idea of the Encyclopædia, the Scientia Generalis, and the Formal Logic which Leibniz all his life endeavoured to create.

B. Russell.

Essai Philosophique sur les Géométries non-Euclidiennes. Par L. J. Delaporte, Docteur en Philosophie de l'Université de Fribourg (Suisse), Licencié ès Sciences Mathématiques. Paris: C. Naud, 1903. Pp. 139.

This work contains a more or less popular account and criticism of non-Euclidean Geometry; the authors chiefly defended or combated are Renouvier, Delbœuf, Lechalas and Calinon. Besides an introduction and a conclusion, there are five chapters, on history (slight, but good), on mathematical considerations, on geometrical space, on the definition

of the straight line, and on the fourth dimension. There is a useful appendix, setting forth side by side the elementary points of agreement and difference between Euclid, Lobatchewsky and Riemann; there is also a bibliography, in which, however, no mention is made of the Italians (notably Peano and Pieri). The book suffers from an undue neglect of projective considerations, and from a certain contempt for the analysis of complex notions (such as surface or volume) which the ignorant (whom philosophers deify as Common Sense) are inclined to regard as simple. The author rather rashly identifies a great circle in a Euclidean space with a straight line in a spherical space—an identification which, if made at all, requires a far greater abandonment of "intuition" than he is prepared for. Also he errs in attributing "curvature" to non-Euclidean straight lines; and it would seem a pity to object to non-Euclid on the ground of lack of intuitiveness, without discussing what intuition is, or endeavouring to appreciate the reasons which have led mathematicians more and more to care only for logical rigour. The old error that Helmholtz's flatland and sphereland were intended (in spite of his explicit denial) to suggest a fourth dimension, not merely other three-dimensional spaces, is repeated once more in this book. But in spite of these errors, the book will be found instructive, in regard to the older phases of non-Euclidean Geometry, by those who have no previous knowledge of the subject.

B. Russell.

Die Willensfreiheit. Eine neue Antwort auf eine alte Frage. Dr. Adolf Bolliger. Berlin: Reimer, 1903. Pp. viii, 125.

Prof. Bolliger's essay was submitted two years ago to the Hague Society for the defence of the Christian religion, where it won distinction, if not the prize. The thesis for the competition was a wordy one, as to whether Indeterminism, as defined in Kant's transcendental freedom of will, was borne out by the testimony of subjective experience (*Seelenleben*), and by recent science. The author, who writes throughout genially and with the style of an interesting preacher, first rejects Kant as a true representative of Indeterminism. He then argues for the real existence of will as a potency which can, often in opposition to feeling, act for *deferred* ends. In this connexion between will and time he finds justification for exalting time from a falsely called *Vorstellung* into the greatest of all realities, namely the Deity. "God is almighty time . . . and man, . . . as will, is his reflexion (*Abglanz*)."

C. A. F. Rhys Davids.

La Volontà, secondo i recenti progressi della biologia e della filosofia. Dr. Achille Marucci. Roma: E. Loescher & Co., 1903. Pp. v, 115.

This essay proposes, within its modest bulk, to serve as "an inquiry, genetic, physiological and psychological, into the will" along positive, anti-metaphysical lines. The existence of difficult complications is admitted, but not that of any insoluble mysteries whatever of a superphenomenal order. With a youthful buoyancy the author denounces the sterility of yesterday's 'ideological' theories of volition, and the stubbornness of "the residuum of impenitent verbalists" who uphold them to-day in the face of scientific progress. Speaking with detachment of materialists as of idealists, he declares that the last word in the explanation of will is to be said by biology. A brief but able out-

line of the effect of recent science on philosophic concepts brings him to the preliminary definition of will as no self-determining faculty, but "a collective name for particular acts determined by natural causes". He then inquires into the nature of those acts and those causes, giving us a biological discursus on purposive movements in reaction to stimuli, from amœba to man, and on the histology of nerve—apparently a more thorough piece of work than we should look for in the psychologist who is not also, and first, a physiologist. Carrying forward certain psycho-physical results, he passes to the psychology of desire or want, motive, inhibition and choice. The last term lands him finally in a passage of arms with Indeterminism.

There is room here, as in Italy, for fresh work like this on the psycho-physics of conation. If we are not always to have an 'unrepentant residuum' with us, there should be no remission of effort among psychologists to get adequate analyses of the physical concomitants of that which we know in subjective experience as volition, and an adequate psycho-physical terminology generally. Without the latter there are apt to come hitches in treatment. Terms of objective and subjective science are confused together, values are distorted and metaphors are thrown in with a false semblance of insight. For instance, 'idea,' in terms of movement, becomes as such "most feeble, partial and imperfect"—obviously an inadequate estimate. Again, "a more crystalline substance than sensation" gives little help. Dr. Marucci, however, keeps as a rule to paths of clearness and consistency.

C. A. F. Rhys Davids.

Received also :—

F. C. Schiller, *Humanism—Philosophical Essays.*
Marcus Dods, M.A., B.A., *Forerunners of Dante.*
Frederick R. Farmer, M.R.C.S., L.R.C.P., *A Scheme of Brain Storage, with some new theories connected with the Environment.*
The Metaphysical Magazine, July-September, 1903.
Alfred Binet, *L'Année Psychologique* (neuvième année).
Rudolf Goldschild, *Zur Ethik des Gesamtwillens.*
Anton Leitz, Dr. theol. et phil., *Willensfreiheit und moderner psychologischer Determinismus.*
Dr. Albert Lang, *Nietzsche und die deutsche Kultur* (zweite, vermehrte Auflage).
Paul Stern, *Grundprobleme der Philosophie : I. Das Problem der Gegebenheit.*
R. Schweitze, *Die Energie und Entropie der Naturkräfte.*
Dr. Albert Lang, *Maine de Biran und die neuere Philosophie, ein Beitrag zur Geschichte des Kausalproblems.*
Dr. Emil Arleth, *Die metaphysischen Grundlagen der Aristotelischen Ethik.*
Giorgio del Vecchio, *Il Sentimento Giuridico.*

VII.—PHILOSOPHICAL PERIODICALS.

PHILOSOPHICAL REVIEW. Vol. xii., No. 3. **J. R. Angell.** 'The Relations of Structural and Functional Psychology to Philosophy.' [The biological idea of structure extends in psychological application "only to the implication of a specific kind of complexity: beyond that it is irrelevant and inapplicable". The biological idea of function is, without any question, "applicable in a general way to the life of consciousness". As regards the relation of the two aspects of mind, we note (1) that many psychical processes, ordinarily regarded as functional, not only involve structural elements of the accepted sort, but also themselves possess unique structural attributes; (2) that, in any given case, structure and function turn out to represent simply two phases of a single fact; so that our present psychology needs "a further development of both branches of the inquiry, based upon the distinction and a clearer recognition of the real relation of the two"; and (3) that the alleged superiority of structural psychology merely indicates that mental science has developed as science at large has developed,—static and structural phases of the cosmos being known earlier than its dynamic and functional features. It follows that "psychology cannot succeed in its effort to determine what consciousness is . . . without a determination of what consciousness does," *i.e.*, that it must inquire into the how and why of conscious operations. "Start from the psychological standpoint, and we insist that you cannot avoid certain functional statements. Once enter upon statements of function and you cannot . . . stop short of a logic, an ethics and an æsthetics. Furthermore, in the same movement which carries you into logic, you will inevitably find yourself drawn back into epistemology. . . . The attitude is one and the same throughout, the attitude of really understanding the structure and function of consciousness."] **E. B. McGilvary.** 'Altruism in Hume's *Treatise*.' ["The relation of the *Treatise* to the *Enquiry Concerning the Principles of Morals* is much closer than recent critics would admit. . . . The former work attempted to elaborate an explanation of the passions by the principle of association, and to apply the explanation to some of the passions—not by any means to all. The latter work, accepting the existence of exactly the same passions, did not attempt to enter upon that problem," partly because Hume now doubted whether any solution could be reached, partly because he now knew that abstruse speculations were not popular. But "Hume did not modify in the least his view of the relative preponderance of fundamentally altruistic over fundamentally egoistic principles in human conduct. In both works he admitted the presence of both kinds of springs of action, and in the earlier as well as in the later he found that it is 'rare to meet with one, in whom the kind affections, taken together, do not overbalance all the selfish'." These conclusions are based (1) upon a consideration of the general drift of Hume's psychological theory as presented in the *Treatise*, and (2) upon an

analysis of the passages in which he applies this theory in detail to love, sympathy and benevolence.] **H. H. Bawden.** 'The Functional Theory of Parallelism.' [(1) *Function.* "The essential idea in function lies in the use, value, or utility of the structure for some end. Function and functioning, ultimately, are not material processes, but ideal significances or meanings. . . . Instead of saying that the psychical is the functioning of the physical, it would be truer to say that the psychical and the physical are constituent and correlative functions within experience. . . . The ontological distinction of mind and matter doubtless served a useful purpose at one time in the history of reflective thought." But these concepts now "stand simply for a functional division of labour in the building-up of our actual experience as a systematic whole". (2) *Mental Activity.* "Mental activity is not a special sort of activity. . . . Mind is not a different mode of energy from matter. . . . Mental life is a continual synthetic construction. It is simply a name for the orderly, continuous functioning of an organism under conditions of tension in adaptation. . . . The sole difference" between mental acts and other acts in the world "consists in their being tensional or conscious acts instead of habitual or stable acts". (3) "Nothing can be in the mind of which the mind is unconscious. . . . The unconscious background of the conscious is not mental but neural. The subconscious is the mechanised background of the conscious," *i.e.*, is 'physical'. (4) In the light of these discussions, we may say that "this problem of mind and matter is, in reality, only a phase of the larger problem which modern psychology has transformed from its abstract statement, as the problem of the many and the one, into the more intelligible statement as the relation of means to end".] Reviews of Books. Summaries of Articles. Notices of New Books. Notes.

Psychological Review. Vol. x., No. 1. **J. R. Angell.** 'A Preliminary Study of the Significance of Partial Tones in the Localisation of Sound.' [Experiments out of doors with a specially constructed sound-cage, by means of tuning-fork, stopped pipe, reed pipe, bell, telegraphic sounder. Intensive differences alone are sufficient for confident and accurate assignment even of pure tones to the median vertical plane and to the lateral hemisphere from which they chance to come, as well as for less confident and accurate reference to the transverse vertical plane of the head. But "accuracy of localisation as regards altitude in this transverse plane, and accuracy in the several regions between this plane and the median plane" are "apparently dependent upon tonal complexity and the modifications in timbre which complex sounds undergo through the changes in the intensity of their partials, when heard from different directions". Localisation within the median vertical plane is inaccurate with all sounds, but most inaccurate with pure tones.] **R. Macdougall.** 'The Affective Quality of Auditory Rhythm in its Relation to Objective Forms.' [The affective psychology of auditory rhythm must include (*a*) a determination of the modes of feeling which rhythm produces; (*b*) a study of the relation of these modes of feeling to types of physical change in the bodily organism, characteristic of the expression of rhythm; and (*c*) an examination of the external conditions of rhythmical feeling, *i.e.*, of the elements and relations of the objective rhythm-forms which give rise to æsthetic satisfaction or dissatisfaction. The author distinguishes eleven sub-headings in the last problem. Discussion and Apparatus. **R. E. Marsden.** 'A Study of the Early Colour Sense.' [Tests, beginning at the fourth month, upon a boy: (*a*) *eye method:* cards are shown in pairs, and the one followed by the eye noted; (*b*) *grasping method:* coloured balls are offered in pairs, and the one grasped noted; (*c*) *reaching method:* cards are laid out, at certain

distances, and the child's reaction to the stimulus noted. The summarised results are especially valuable from their indication of sources of error.] **J. H. Hyslop.** 'Experiments in the Perception of the Third Dimension.' [Changes in localisation of reflected images, seen in the windows of railway carriages during motion, with variations of convergence (binocular and monocular vision). Explanation in terms of a 'motor' theory—'motor' meaning, however, 'movement-conscious,' *i.e.*, in reality 'sensory,' as distinct from 'unconscious'.] **J. M. Baldwin.** 'Dr. Bosanquet on Imitation and Selective Thinking.' [Answer to the criticism that the theory of selective thinking neglects reasoning ('analytic,' 'teleological' or 'constitutional' elements in our knowledge. Distinction of the problems of social and individual thought organisation. Analogy, in individual thought, of the constitutional rudiment or *Anlage* of the biologists. Necessity of a genetic theory: the hypothesis of race-experience and of variation; 'consciousness of unity' as a motor process. "A whole of thought which illustrates and accomplishes a mental end is not only not exempt from the requirement of being psychophysical and phenomenal, but its only possible realisation in experience is through such processes, through traceable genetic processes."] **C. E. Seashore.** 'A Sound Perimeter.' [A sound cage for research work.] Psychological Literature. New Books. Notes. Vol. x., No. 2. **E. C. Sanford.** 'Psychology and Physics.' [President's Address before the American Psychological Association, December, 1902. (1) Psychological theory is influenced to a large, even to an embarrassing, extent by points of view and forms of expression derived from physics. This is referable not so much to physics as a science as to man's general commerce with the outside world. Now from an exclusively psychological standpoint, physics is merely a most elaborate development of one aspect of the psychology of the cutaneous and kinæsthetic senses, a study of fixed associative groups of a limited sensory origin. The difference between the two sciences is a difference (*a*) of attitude, (*b*) of variety of experience covered, and (*c*) of relative simplicity of contents. On the other hand, psychology itself is conscious of gaps in its empirical series, and tends to fill these gaps by appeal to the outside world and to unconscious cerebral processes. No harm is done, if we remember that the physical series called in is itself "based upon the physical group of sensations, and has been elaborated according to the usual psychical processes of perception, association, abstraction and generalisation". But this implies that we are to utilise the physical series to the best psychological advantage; and this, in turn, leads to an interaction theory of the relation of mind to body. (2) In spite of physical influences, psychology is, and probably must remain, an anthropomorphic science.] **F. G. Bonser.** 'A Study of the Relations between Mental Activity and the Circulation of the Blood.' [A sphygmographic and plethysmographic study. Emotion and intellectual activity are accompanied by change in heart-rate and blood-pressure, and generally by peripheral vasomotor changes. The only constant variation for agreeable and disagreeable stimuli is that the vasomotor level is more quickly recovered in the former case. Prolonged intellectual activity lessens the pulse curve, increases blood-pressure, and lessens the acuteness of the dicrotic notch. It has three distinct vasomotor effects: progressive constriction, no progressive change, and progressive constriction for a time, followed by a steady level of constriction or a slight dilatation. The Traube-Hering waves correspond to fluctuations of visual and auditory attention, the greatest acuity occurring just after the maximum of vasoconstriction.] **G. T. Ladd.** 'Direct Control of the Retinal Field: Report on Three Cases.'

[Statement of observations, with the conclusion that "consciousness must from the very first, and in all its varied forms of manifestation, be considered as an active, discriminating, selective and directive force". As the author cites his Colour Illusion of 1898, he has probably not seen McClure's paper in *Am. Journ.*, xii., 178.] **L. Farrand.** 'Proceedings of the Eleventh Annual Meeting of the American Psychological Association, Washington, D.C., 30th and 31st December, 1902; 1st January, 1903.' **M. E. Alling.** 'An Example of an Association through a Forgotten Idea.' [Chimes aroused image of building, familiar ten years before, and identified from the writer's description by his mother.] Psychological Literature. New Books. Notes. Vol. x., No. 3. **J. M. Baldwin.** 'Mind and Body from the Genetic Point of View.' [An examination of the alleged primacy of subjective over objective, in the light of the genesis of the distinction between body and mind. (1) The three stages of growth, formulated as: (*a*) the projective progression, "projective experience becomes personal-projects and thing-projects"; (*b*) the subjective progression, "personal projects become subject-self and object-self"; and (*c*) the ejective progression, "object-self becomes mind and body". (2) In the later stage mind and body have strictly correlative meanings. The question is that of the relation of presented mind, considered as the object of reflexion, and presented body, likewise considered as the object of reflexion. Materialism takes the spontaneous standpoint for body, the reflective for mind; subjectivism takes the spontaneous standpoint for mind, the reflective for body: both alike, therefore, miss the issue. (3) The distinction between mind and body requires the use of two categories of construction. Physics interprets the agenetic; its formula for cause and effect is an equation. Psychology and ethics interpret the genetic (as subjective); their formula is that of progressive organisation; the equation is replaced by the progression. If we attack the problem of the relation of mind to body in terms of one category only, we either make mind a form of energy (materialism) or deny that antecedent brain-state fully determines subsequent (subjectivism): either form of interactionism is erroneous. (4) The conditions are fully satisfied by psychophysical parallelism. The further question arises: "How can we satisfy the mental demand for a type of change which shall . . . both exhibit the form of 'progression' . . . and also be liable to interpretation in terms of the equations of agenetic science?" Its answer is found in æsthetic experience and in the philosophy of æsthonomic idealism.] **J. R. Angell.** 'Studies from the Psychological Laboratory of the University of Chicago.'—I. **C. R. Squire.** 'Fatigue: Suggestions for a New Method of Investigation'. [An attempt to observe the rise and trace the course of fatigue of attention, with elimination of muscular fatigue and peripheral distractions. The method is that of tapping a pattern of digits, under ergographic control. The work yielded good introspective results, and made possible a distinction between general and special fatigue. Suggestions are given for various extensions of the method.]—II. **K. Gordon.** 'Meaning in Memory and Attention.' [Complex series (syllables complicated by space and colour variations) are learned more easily than simple; both complications contribute to the result. Attention is directed preferably to and held longer upon the more complex of two presented geometrical figures. "On the structural side, meaning is contiguity often repeated; on the functional side, it is attention or interest. Repetition is the means of acquirement of significance, and the fact of internal interest in a content stands for the significance acquired in the past."]—III. **M. L. Ashley.** 'An Investigation of the Process of Judgment as Involved in Estimating Distances.'

[With observers of either pronounced visual or motor type, the corresponding mental factor tends in judgments of this kind to be emphasised to the neglect of the other in case they are combined. Judgment may be the product of habits or tendencies which we not only do not ordinarily recognise, but which we cannot correctly evaluate when conflict brings them to our notice. We may be predominantly influenced by factors of which we are clearly conscious, and which we definitely suppose ourselves to be disregarding.] Discussion and Reports. **J. H. Hyslop.** 'After-images and Allied Phenomena.' [In cases of mental preoccupation and abstraction, there is a tendency to the occurrence of after-images, and to a narrowing of the field of vision.] **R. E. Marsden.** 'The Early Colour Sense: Further Experiments.' [Comparative experiments with greys and colours, to test the colour sense in young children. But the greys and colours were matched in different objective illuminations!] **W. Lay.** 'Mental Imagery.' [Critique of Slaughter's paper in *Amer. Journ.*, xiii., 1902, 526 ff.] **A. Allin.** 'On Laughter.' [Critique of Sully. Notes on ticklishness; laughing as a therapeutic agency; humour and wit as the result of vasomotor and nervous changes; self-illusion as an æsthetic theory, etc.] Psychological Literature. New Books. Notes.

American Journal of Psychology. Vol. xiv., No. 1. **J. Gaule.** 'What is Life?' [(1) The machine converts combustible materials directly into energy; the organism first makes the food a part of the body, while the tissues of the body in their turn decompose energy thus developing into simpler combinations. (2) The individual cell does not enjoy an independent existence, taking its nourishment from the common store according to need; all cells are dependent upon substances produced by other cells for their building material. (3) The organism is in a state of ceaseless change, quite independently of the experiments one makes upon it. (4) The living being is in a constant state of re-formation for adaptation to its environment. Illustration from the presence of nucleated red blood-corpuscles at high altitudes (balloon ascents).] **H. C. Stevens.** 'The Plethysmographic Evidence for the Tridimensional Theory of Feeling.' [Careful examination of the plethysmograms in Lehmann's Atlas, in the light of the interpretation put upon them by Wundt in *Phil. Stud.*, xv., and in the *Völkerpsychologie*. Wundt's appeal to the curves, on behalf of his tridimensional theory of feeling, is unsuccessful on all its five counts.] **G. S. Hall** and **T. L. Smith.** 'Reactions to Light and Darkness.' [Questionary returns. Dawn; the sun as making an effort; the dualism of light and darkness; the sun's rays as tangible, as hard and sharp, as connexions between heaven and earth, as fairies, as water drawers; omens; sunset feelings; twilight fancies; effects of artificial light; effect of changes of dark and light, of clouds, of sun on new snow, of dark days, on children and adults. The questionary answers are set in interesting discussions of mythology.] **E. B. Titchener.** 'A Plea for Summaries and Indexes.' **G. S. Hall.** 'Note on Moon Fancies.' [Childish and present ideas and feelings about the moon, from 184 girls between eighteen and twenty-two years of age.] **I. M. Bentley.** 'The Simplicity of Colour Tones.' [The arguments both from the four visual types and from the twofold resemblance of the intermediate colours are insufficient to prove the complexity of visual qualities. The criterion of psychological elementariness: "one analyses introspectively so long as one can think a quality or a group of qualities as existing apart from its context; when the element is reached, the object of attention refuses to be thought further as object and context". Again, "comparison is essential to classification, but classification and analysis are quite different processes and yield wholly unlike results"

We thus find ample ground for the belief that, psychologically, one colour-tone is as simple and as ultimate as another. "It would be difficult to find a more illuminating instance of the essential difference between psychophysical and psychological problems, and of the necessity for distinguishing mental analysis from the objective simplification of physical and physiological factors."] **G. S. Hall.** 'Child Study at Clark University: an Impending New Step.' [Programme of future work, on the basis especially of a grant from the Carnegie Institution. List of Syllabi so far issued; books and articles based upon them; sample bibliography.] **G. M. Whipple.** 'A Compressed Air Device for Acoustic and General Laboratory Work.' [An instrument, of the type of the double gasometer, for furnishing a steady air current, sufficient to actuate a small organ pipe or Stern bottle for about two and a half minutes.] **I. M. Bentley.** 'Professor Calkins on Mental Arrangement.' [Reply to criticism in *Philos. Rev.*, xi., 1902, 553.] Literature.

Revue de Philosophie. 3e Année, No. 4. 1er Juin, 1903. 'Esquisse d'une éducation de la mémoire.' **J. J. van Biervleit.** The poor results of 'lesson by heart' at school are experimentally shown. Hence the desirability of new methods. The sensibility of the several senses and the duration of their various impressions vary in various individuals. Children should learn to remember by aid of as many senses as possible. For literature, only true ornaments of memory should be committed to memory. Vain repetitions should be avoided. Better to go over the passage once slowly, with attention to each syllable, and repeat the exercise after an interval. There are proposed exercises in remembering things seen and heard. The article deserves the attention of pedagogists. 'L'illusion de fausse reconnaissance.' **Emile Laurent.** The sudden impression of having 'seen all that before,' even when one is for the first time in a strange locality, is attributed to the influence of dreams. Readers are invited to communicate their personal experiences of this phenomenon to the editor. 'Les problèmes métaphysiques du Mixte.' **A. Charousset.** When oxygen and hydrogen are combined to form water, do the component substances still exist in the water, or do they disappear to form the one substance of water? The problem in its general shape is as old as Aristotle, and received much attention from the schoolmen. According to the author, every mineral compound body, be it either chemical combination or mechanical mixture, is a simple aggregate of substances, more or less altered, more or less unified in their sensible properties, but keeping always their respective individualities. He insists on the discovery of Sainte-Claire-Deville that there is no chemical *modus operandi* distinct from physical *modus operandi*, and that chemistry and physics henceforth make but one science. He promises to return to the metaphysical consideration of this question. 'Quelques arguments philosophiques en faveur de la liberté d'enseignement.' **S. Jankelevitch.** The author rejects the theory which bases the liberty of teaching on the rights of parents: he considers that it assigns to the family an independence which would be destructive of the State. At the same time he is on his guard against too close an application of biology to politics; he does not admit that the family is to the State exactly as the cell to the body. He holds the State to be an expansion of the individual rather than of the family. He points out how, when power was wrenched from the minority composed of the privileged classes, the liberalism of *laissez-faire*, restricting the State's functions to those of police, led to the grinding down of the weaker individual by the stronger, and threatened to result in the disruption of society. Thereupon a new liberalism, or rather socialism, undertook to protect the

weak, and in doing so has armed the State with such powers that individual liberty has come to be once more in jeopardy. Such has been the effect of the teaching of Rousseau, and, after him, of Comte and Karl Marx. The modern State claims to mould the individual by a State-directed education. Finding what seemed to be a common ground for all modern minds in Science, the State has wished to make of Science the staple of its education. It has wished to make Science supreme and sole, to the exclusion of other educational forces which appeal more to the heart and conscience of the individual. The author argues that Science is not an instrument fit to do all the work that the State expects of it. He considers that the State may well insist upon Science for all: but should leave to individuals the liberty of their own teaching in religion and metaphysics. In that domain individuals should be emancipated from State control, the State only interfering to prevent their impeding the liberty of one another. 'Thèses de Doctorat de M. Ribery à la Sorbonne.' **M. Ribery's** Latin thesis is 'De infinito apud Pascalium'. He draws an analogy between Pascal and Kant, turning on their respective employment of the terms Infinite and Absolute, Appearance and Phenomenon, Heart and Reason. A French thesis follows, 'Essai de Classification Naturelle des Caractères'. M. Ribery considers that intellect is no part of character. By 'character' then he means 'temperament,' and distinguishes eight temperaments, maintaining that temperament is given by nature, not by education, and that it is impossible to pass from one temperament to another. On both theses there is an interesting discussion reported between M. Ribery and his Examiners.

Zeitschrift für Psychologie und Physiologie der Sinnesorgane. Bd. xxxi., Heft 3. **H. Piper.** 'Ueber Dunkeladaptation.' [Report of an elaborate experimental investigation of the temporal course and the quantitative relations of adaptation, *i.e.*, of the increased retinal sensitivity induced by the removal of light stimuli. The author confirms Tschermak's discovery of two types of adaptation, the one characterised by quick rise, with very marked increase of sensitivity, the other by a slow course, with a much lower maximum. Tschermak had brought these two types into close relation with Hering's typical differences of normal colour vision and of colour blindness: quick adaptation going with relative yellow-sightedness of normal colour vision and with 'green blindness,' slow adaptation with relative blue-sightedness and with 'red blindness'. Piper is unable to support this correlation. He concludes (1) that the mechanism of adaptation is, within wide limits, independent of and separate from the mechanism of brightness and colour vision; and (2) that the union of the fields of vision, in adaptation to dark and light respectively, obeys essentially different laws. In binocular vision with dark-adapted eyes there is an addition or summation of the liminal stimuli of the two organs; in vision with bright-adapted eyes this is not the case. He therefore infers that in dark-adaptation central nerve structures are involved, whose function in face of light stimuli is different from that of the structures involved in bright-adaptation.] **T. Ziehen.** 'Eine Hypothese über den sogenannten "gefühlserzeugenden Prozess".' [The physiological substrate of the affective process must be looked for in the cortical cells (*cf.* loss of feeling-tone in dementia paralytica). It is a concomitant of the physiological process underlying the content of sensation and idea, but is so far independent that it can be transferred by irradiation or reflexion from an idea to associated ideas and their basal sensations. Its relation to stimulus is much more variable than is that of the process

underlying intensity and quality of sensation. If it underlies 'positive' feeling-tones, it accelerates, if it underlies 'negative,' it inhibits, the association of ideas and of movements: this action being, on the whole, teleological. All these requirements of fact are met by the hypothesis that "die Gefühlscomponente des psychophysiologischen Prozesses mit der Entladungsbereitschaft der kortikalen Zellen identisch ist".] Literaturbericht. Bd. xxxi., Heft 4. **M. Meyer.** 'Zur Theorie der Geräuschempfindungen.' [Critique of Stumpf's discussion in the *Tonpsychologie*. The second definition of noise rejected by Stumpf ("Geräusche sind sehr zahlreiche, sehr schnell aufeinanderfolgende Töne verschiedener Höhe") can be accepted, if we remember that 'tones' here mean 'subjective tones,' and that the same effect can be produced "durch einen entsprechenden Wechsel objektiver Töne oder durch eine Anzahl gleichzeitiger Töne in Intervallen, die beträchtliche Unregelmässigkeiten des Klanges bedingen". Except on the resonance hypothesis (which is untenable), the cochlea presents itself as the organ of noise sensation. Brücke's theory of single-wave noises must be given up: it ignores the existence of waves of reflexion. The 'pitch' of noises is not pitch at all, but noise-tint, akin to the tone-tint ascribed by Stumpf to simple tones.] **C. L. Franklin** and **A. Guttmann.** 'Ueber das Sehen durch Schleier.' [If the eye is accommodated for a distant object, and a veil drawn over the face, there is but little interference with vision (ladies' veils). If the veil is drawn over the object, we get, if the meshes are distinct, a concealment of contours and a darkening by shadow (face seen through veil); if the meshes are not distinguished, either a general darkening of the object (dark veil) or a loss of details and of differences in light and shade (light veil, such as is used for clouds in theatrical scenes: *cf.* the admission of light to the ground-glass plate of the camera). Intermediate positions of the veil give more complicated conditions. The authors experimented with optotypes, between which and the observing eye veils of gauze or wire were interposed at varying distances; in certain experiments the eye was treated with homatropin. They found that, in spite of individual differences, and of differences in the function of accommodation, the material of the veil, the character of the meshes, etc., "alle Kurven denselben typischen Verlauf zeigen, nämlich: Absinken der Sehleistung bis zu einem relativen Minimum (varying from 30 to 90 cm.) und dann nach einiger Zeit ein Ansteigen der Sehleistung" (beginning at 40 to 90 cm.).] **A. Iwanoff.** 'Ein Beitrag zur Lehre über die Knochenleitung.' [Confirmation of Frey's results as regards long bones ("die Schalleitung ist desto besser, je fester, kompakter der Knochen ist") and skull (conduction is best to diametrically opposite points). Discussion of the laws of conduction in a wooden ball. Experiments on the cadaver show that the dura mater is a better conductor than the bony substance of the skull. Sound waves may be conducted to the labyrinth directly, and not merely by way of the tympanic membrane.] Literaturbericht.

Archives de Psychologie. Tome i., Fasc. 3. **E. Murisier.** 'La psychologie du peuple anglais et l'éthologie politique.' [Review and critique of Boutmy's *Essai d'une psychologie politique du peuple anglais au XIXe siècle*, 1901. General laws, such as the statement that the northern peoples are given to introspection and reflexion, the southern to a life of externals, or that the English people are naturally individualistic, do not hold water. Consideration of family life, of political and practical *vs.* social and theoretical freedom, etc. A political ethology should begin with a monograph on cant for England, on the sense of the ridiculous for France.] **E. Abramowski.** 'De la loi de corrélation

psycho-physiologique au point de vue de la théorie de la connaissance.' [The nature of mental phenomena; the function of introspection in psychological investigations; the difference between outer and inner experience; mental phenomena and the law of conservation of energy; the concept of correlation and its distinguishing attributes. The two factors in the correlation mental process and physiological correlate) are not causally connected; they coexist simultaneously; variation in the one necessarily brings with it variation in the other.] **E. Claparède.** 'L'obsession de la rougeur, à propos d'un cas d'éreutophobie.' [Careful analysis of the psychology of the blushing mania, with clinical notes, and suggestions for treatment.] **E. Claparède.** 'Essai d'une nouvelle classification des associations d'idées.' [Reprinted in the author's work *L'association des idées*, 1903.] Notes et Documents. Notices bibliographiques. Tome i., Fasc. 4. **A. Lemaitre.** 'Hallucinations autoscopiques et automatismes divers chez les écoliers.' [Report of five cases, with discussion.] **M. Millioud.** 'Le problème de la personnalité.' [1. *Methods and solutions.* We may rule out the question of a soul-substance as metaphysical. We then find three psychological schools, appealing respectively to the unity of the physical organism, to association, and to volition or synthetic activity. The right method is, to go to consciousness for facts; and then to attack the biological and metaphysical problems of individuality. 2. *The consciousness of self and the sense of unity.* "L'unité du sujet sentant est une donnée certaine de l'expérience. . . . L'unité que nous sentons est l'unité d'une fonction, et nous sentons juste, car cette fonction est une, bien qu'elle résulte du concours de plusieurs agents." 3. *The sense of identity and processes of simplification.* Memory is at the root of our sense of personal identity. We simplify its work by a 'totalisation des souvenirs,' a sort of automatic classification; by recourse to an image of the self; or by dispensing with the dissociation of subject and object in the remembered situation. "Notre sentiment d'identité, c'est l'unification de tous nos états par le mécanisme de l'opposition. . . . C'est par division que tout se lie et s'organise dans la vie de l'esprit."] **K. Fairbanks.** 'Le cas spirite de Dickens.' [Examination of the spiritualistic conclusion of *Edwin Drood*, with negative conclusion.] Notices bibliographiques. Tome ii., Fasc. 1. **M. Thury.** 'Observations sur les mœurs de l'hirondelle domestique.' [Swallows are lively birds, quick, independent, susceptible and proud, sociable.] **A. Binet.** 'Note sur l'appréciation du temps.' [If one wishes the time to pass quickly, it goes slowly, and conversely: illustration from a case of insomnia.] **E. Claparède.** 'L'illusion de poids chez les anormaux et le signe de Demoor.' [Demoor found in 1898 that the size-weight illusion did not hold for certain abnormal children. The author thinks that this fact (Demoor's symptom is of importance for the diagnosis of abnormalities; the illusion itself is due to a persistence of instinct, the reversed illusion in abnormal cases to a dissociation of instinct. Tests upon insane subjects gave varying results.] **T. Flournoy.** 'Les principes de la psychologie religieuse.' [Current psychology of religion is based upon two principles: that of the exclusion of transcendence, and that of biological interpretation. The former is negative and defensive, ruling out any judgment of the objective value of the beliefs investigated; the latter is positive and heuristic, regarding religious phenomena as manifestations of a vital process whose character, genesis, laws, etc., may be determined.] Recueil de faits: documents et discussions. **J. de Pury.** 'Observations de paramnésie.' **E. Claparède.** 'A propos de la rougeur.' Bibliographie. Notes diverses. Tome ii., Fasc. 2. **A. Naville.** 'Linéa-

ments de psychologie esthétique.' [Remarks on the direct (pleasures of sight and hearing) and indirect (pleasures of imagination) factors in æsthetics. No attempt is made to analyse psychologically the æsthetic sentiment.] **A. Lemaitre.** 'Jenny-Azaéla: histoire d'une somnambule génevoise au siècle dernier d'après des documents inédits.' [Case of double personality, extending over forty-nine years.] **E. Claparède.** 'La faculté d'orientation lointaine (sens de direction, sens du retour): essai de mise au point d'après quelques travaux récents.' [A review of theories and observations concerning the "homing instinct" of ants, bees, pigeons, etc. The current theories of topographical memory and of reversal of route are neither of them adequate to all the facts; probably the animal avails itself of all available data. What we now need, however, is not so much theory as careful and extended observations. The paper ends with a bibliography of seventy-three titles.] Recueil de faits: documents et discussions. **H. Zbinden.** 'La crainte de l'insomnie.' **M. Thury.** 'L'appréciation du temps.' Bibliographie. Publications reçues. Notes diverses.

Archives de Psychologie de la Suisse Romande. Tome i., No. 1. **T. Flournoy.** 'Le cas de Charles Bonnet: hallucinations visuelles chez un vieillard opéré de la cataracte.' ['Bonnet's case' is familiar to students of psychology, if only from its mention in Höffding's *Outlines*. The author has obtained and here publishes the subject's own account of his case: "Visions de M. l'ancien Syndic Lullin, Seigneur de Confignon". The text is followed by a commentary. "Les visions de Lullin sont bien des hallucinations proprement dites, non des hallucinations dites psychiques, ou pseudo-hallucinations, n'affectant que l'œil intérieur et dépourvues du caractère d'objectivité propre aux perceptions."] **A. Lemaitre.** 'Deux cas de personnifications.' [Two studies of synæsthesia, involving personification. In the one case "les personnifications ont pris naissance dans le besoin instinctif d'associer un sens à des mots entendus mais encore incompris; le son de ces mots, frappants par leur étrangeté, s'est alors adapté à des objets ou à de menus details bien localisés, qui tombaient sous les yeux" of the subject "à la maison ou à la promenade"; in the other, "c'est la vue et non l'oreille qui la première a dû engendrer les personnifications des lettres majuscules imprimées de l'alphabet".] **A. M. Boubier.** 'Les jeux de l'enfant pendant la classe.' [Schoolroom plays of children from nine to thirteen years of age: talking, epidemic interests, reading, pictures, barter, drawing, correspondence, carving, music, muscular activities, kaleidoscopic devices, etc. The theories of superfluous energy and of recuperation, and the principle of imitation, are insufficient to explain the phenomena, which must be looked on rather as 'preparatory exercise' or 'preliminary activity' (Voruebung, Einuebung). From this point of view it is inadvisable to attempt the total suppression of the play-forms.] **E. Claparède.** 'Expériences sur la vitesse du soulèvement des poids de volumes différents.' [When objects have the same weight but different volume, they are lifted the more quickly the greater their volume. There are two moments in the lifting: the latent time, and the lift proper. In general, the former is shorter the quicker the lift; but in some cases one moment only is the determining factor in the impression of weight, and then it is rather the rate of lift than the duration of the latent time. At times, again, there is compensation or over-compensation of the two moments: a very slow lift will follow a very short latent time. These moments are not, as such, psychological factors that enter into the illusion; they are mechanical conditions of the variation of tendinous and muscular tension, which is itself the sole factor upon which the specific

sensation of weight depends. The weight illusion is, therefore, not a psychological illusion in the regular sense, but a consequence of the persistency of instinct. Since the motor impulse is greater for greater volumes, and the greater volume is perceived as lighter, there is no sense of innervation. The reason for the direct objectification of the peripheral data is the insufficiency of acquired associations existing among the various elements (tension, speed, etc.) of the complex.] **K. Fairbanks.** 'Note sur un phénomène de prévision immédiate.' [Case of anticipation of spoken words in the class room, without the illusion of paramnesia. Explanation in terms of cerebral automatism, induced by fatigue and bad air.] Notices bibliographiques. Tome i., No. 2. **T. Flournoy.** 'Nouvelles observations sur un cas de somnambulisme avec glossolalie.' [Reviewed by F. C. S. Schiller, MIND, April, 1902, N. S., xi., 262 f.] Notices bibliographiques.

PHILOSOPHISCHE STUDIEN. Bd. xix. **F. Angell.** 'Discrimination of Shades of Grey for Different Intervals of Time.' [Repetition and extension of Lehmann's experiments on the recognition of greys by naming. Lehmann's results are confirmed: the observers form a scale of values, and the judgments are free judgments or judgments by verbal association resulting from the formation of this scale.] **P. Barth.** 'Zur Psychologie der gebundenen und der freien Wortstellung.' [In almost all languages the position of words in the sentence is subject to definite rules: this is true even of vulgar Latin. The European languages are originally free in this regard: but the freedom is limited, especially by association through similarity of feeling. Illustrations from German, although the Germanic languages as a rule have great freedom. Significance of this fact for racial psychology.] **B. Bourdon.** 'Contribution à l'étude de l'individualité dans les associations verbales.' [The same words are submitted for association to a large number of persons, and the most frequent associations and the number of these most frequent associations for each person noted. The results throw light upon mental constitution.] **J. McK. Cattell.** 'The Time of Perception as a Measure of Differences of Intensity.' [Experiments with greys, resumed from 1888. "When the differences were made smaller the times became longer, and the probable errors and the agreement between the two observers prove the validity of the method."] **J. Cohn.** 'Die Hauptformen des Rationalismus.' [Rationalism may be defined as "any philosophy that finds in pure thought the ground of the certainty of all or at any rate of all truly valuable knowledge". It passed from an unconscious (the Ionians) to a conscious stage (Socrates, Plato). From Plato to Leibniz it was ontologistic; in the hands of the post-Kantians and Hegel it became idealistic, metaphysical; in the speculations of modern science it is simply methodological.] **O. Dittrich.** 'Die sprachwissenschaftliche Definition der Begriffe "Satz" und "Syntax".' ["Ein Satz ist eine modulatorisch abgeschlossene Lautung, wodurch der Hörende veranlasst wird, eine vom Sprechenden als richtig anerkennbare relativ abgeschlossene apperceptive (beziehende) Gliederung eines Bedeutungsthatbestandes zu versuchen." Syntax will then include a *Flexionslehre* and a *Lehre von den Formwörtern* or better *Beziehungswörtern*.] **O. Fischer.** 'Ueber die Bedingungen und den Beginn der Ablösung der Fersen vom Boden.' **E. Fluegel.** 'Roger Bacon's Stellung in der Geschichte der Philologie.' [Bacon did not allow to philology an independent place among the sciences; had no special interest in it; gave no original suggestions; paid no serious attention to living languages. Nevertheless he is an acute critic of grammatical traditions; he has a clear insight into

etymological principles ; he advocates a wider and more thorough knowledge of language ; he wrote the first independent Greek grammar of the Middle Ages.] **W. Hellpach.** 'Psychologie und Nervenheilkunde.' [An elaborate study of the relation of psychology at large to the treatment of nervous disorders (hysteria, neurasthenia, etc.), with special reference to the conflicting claims of popular psychology on the one hand, and modern intellectualistic or voluntaristic psychology on the other. Critique of the views of Flechsig, Ziehen, Moebius, Kraepelin, etc. The author declares himself a voluntarist, in the Wundtian sense, and believes that "die durch Wundt uns vermittelten psychologischen Erkenntnisse heute allein im Stande sind, der Vulgärpsychologie in allen ihren Verhüllungen den Boden innerhalb der Nervenheilkunde abzugraben".] **C. H. Judd.** 'An Experimental Study of Writing Movements.' [Investigates a phase of the relation between finger movement and hand and arm movement, in developed adult writing, by aid of a writing point attached to the fifth metacarpal bone, just behind the little finger. The apparatus fails, of course, to record up and down movements, and movements of supination and pronation ; but its simplicity offsets these disadvantages in a preliminary study. The fine formative movements are executed by hand or arm ; the pauses between letter-groups are used for long forward arm-movements and for hand-movements which ensure an easy-working position. The control of writing is visual, not kinæsthetic.] **F. Kiesow.** 'Ueber Vertheilung und Empfindlichkeit der Tastpunkte.' [Record of the distribution (to the sq. cm.) and liminal values (in gr./mm.) of pressure points on wrist, forearm, elbow, upper arm, instep, shin and calf, knee-cap, anterior surface of thigh, chest and back.] **A. Kirschmann.** 'Die Dimensionen des Raumes.' [The thesis of this paper is that the accepted tridimensionality of space is merely conventional, and that the various metageometries are the mathematical outcome of wholly unjustifiable speculations. As the article has since been published in book form, and will be reviewed later, we do not here enter upon its arguments.] **E. Koenig.** 'Ueber Naturzwecke.' ["Die Naturwissenschaft hat es mit der objectiv-realen Erscheinungswelt zu thun, welche die Anwendung des Zweckbegriffes nirgends herausfordert, ja sie überhaupt nicht einmal zulässt ; die Metaphysik ist genöthigt, eine transcendente Bestimmung nach Zwecken als Grundlage des empirisch gegebenen Geschehens vorausgesetzen, wenn die gleichzeitige Gültigkeit der causalen und der teleologischen Deutung der bewussten individuellen Willenshandlungen begreiflich sein soll."] **E. Kraepelin.** 'Die Arbeitscurve.' [An attempt to analyse a curve of 90 min. uniform work, recorded in 5 min. sections, into its components of practice, fatigue, warming-up, habituation, and tension of will. The author confesses that, after more than a decade of work, he is able to offer only a provisional and crude analysis, but thinks that "eine sorgfaltige Erforschung der Arbeitscurve in allen ihren Einzelheiten" is the only path to "ein Massverfahren, welches durch zweckmässige Vertheilung von Arbeit und Ruhe uns mit den wesentlichsten Eigenschaften der Versuchspersonen, ihrer Uebungsfähigkeit und ihrer Ermüdbarkeit vertraut machen soll".] **O. Kuelpe.** 'Ueber die Objectivirung und Subjectivirung von Sinneseindrücken.' [If our experience is originally unitary, neither subjective nor objective, it must be possible experimentally to produce wrong (or at least doubtful) objectification and subjectification, and to prove the conditioning of judgment upon factors extraneous to the experience itself. Experiments made in the spheres of visual and cutaneous sensation showed that both of these hypotheses are correct. The motives of objectification and subjectification are worked out in detail, and the

psychological and epistemological significance of the results discussed.] **P. Rostosky.** 'Ueber binaurale Schwebungen.' [Slow diotic beats are always accompanied by repeated changes of localisation, occurring at the same rate. The direction of localisation is determined in every case by the intensive ratio of the diotic excitations. These facts are explicable on the assumption that the two stimuli, conducted separately, interfere at two points, whose excitation intensities are of determining influence upon sensation, and that the movement processes resulting from the interferences do not run synchronously. If this assumption be granted, the theory that binaural beats are due to transmission of vibrations from ear to ear by the bones of the skull receives important support.] **E. W. Scripture.** 'Studies of Melody in English Speech.' [Study of records by a Rousselot apparatus. "In speech, as contrasted with song, the voice is constantly and continuously changing in pitch. The changes are so gradual and so complicated that any attempt to represent the melody of speech by musical notation is thoroughly misleading. The changes in pitch are not very great."] Bd. xx. **L. Lange.** 'Das Inertialsystem vor dem Forum der Naturforschung: Kritisches und Antikritisches.' [Review of literature on the law of inertia since 1885, with special reference to MacGregor's 1893 paper in the *Phil. Magazine*. "Wer in dem Trägheitssatz einen tieferen Sinn als den einer partiellen Convention sucht, verlässt eben damit meiner Meinung nach das Gebiet der strengen Wissenschaft."] **A. Lehmann.** 'Ueber die Helligkeitsvariationen der Farben.' [Experimental test, by aid of a universal optical apparatus, and on the ground of formulæ set up in the writer's *Die physischen Aequivalente der Bewusstseinserscheinungen*, of the hypothesis that equally intensive colour sensations possess the same brightness. The formulæ are found correct; it also appears that equally bright colours of different wave length have approximately the same periodic constants. The variation of colours in brightness is a simple consequence of the fact that the retina is differently sensitive to light of different wave-lengths. A component theory of colour vision is thus rendered less probable than such a periodicity theory as has been proposed by Wundt.] **G. F. Lipps.** 'Einleitung in die allgemeine Theorie der Mannigfaltigkeiten von Bewusstseinsinhälten.' [The author distinguishes a science of thought, whose fundamental principle is that "Jede Denkform besitzt ihren gegenständlichen Träger, an dem sie zur Ausgestaltung kommt," from a science of objects, with the principle "Alles gegenständlich Bestehende findet durch das Denken seine Bestimmung". Thought itself is either comprehensive (*erfassend*) or relational (*beziehend*). The distinction is important both on the side of the science of thought (*e.g.*, in mathematics) and on that of the science of objects, where it founds the further distinction of a science of conscious contents and a science of substances. The former of these has two objects of investigation: the "relations founded in the nature of the conscious contents," and the "uniformities of connexion, in which conscious contents are experienced". The author, dealing here with the first only, characterises conscious contents by intensity ("Inanspruchsnahme des erfassenden Denkens") and quality ("Weise des Erfassens"), and reaches the notion of a conscious element which, though not empirically perceptible and not given in any act of comprehensive thought, may yet be used as if it were conscious content for the purposes of his problem.] **E. Meumann.** 'Die Entstehung der ersten Wortbedeutungen beim Kinde.' [An important paper, to be included presently in a book on the language of children.] **E. Mosch.** 'Ueber den Zusammenhang zwischen der Methode der Minimaländerungen und der Methode der richtigen und

falschen Fälle.' [The difference limen of minimal changes is exclusively dependent neither upon the measure of precision nor upon the limen of right and wrong cases, but is influenced by both. Approximative formulæ are given for liminal values.] **E. A. Pace.** 'Fluctuations of Attention and After-images.' [Experiments with visual stimuli. The stimulus fatigues the retina, and the impression disappears. Its disappearance affects the central mechanism of attention. This change of attention influences the process of accommodation. This, in turn, affects the operation of the stimulus upon the retina. Reappearance is accordingly a function both of recuperation and of accommodation. The writer thus combines the peripheral (sense-organ) and central (attention) theories of the fluctuation of minimal stimulus differences.] **R. Richter.** 'Die erkenntnisstheoretischen Voraussetzungen des griechischen Skepticismus.' [The paper works out in detail, with constant historical reference, the position taken up as regards ancient scepticism by Wundt in his *Einleitung*. The author extends and confirms Wundt's criticism by reference to the ethics of Pyrrhonism.] **B. Schmid.** 'Der Wille in der Natur.' [A discussion of Wundt's natural philosophy, and especially of his employment of the concepts of will and purpose, on the basis of a comparison with the views of Schopenhauer and Darwin.] **G. Stoerring.** 'Zur Lehre von den Allgemeinbegriffen.' [The scientific definition of the general idea presupposes, besides judgments of inherence and equality or similarity ('these and these characteristics of the complex ideational content or idea-object appear also in a whole series of other ideational contents or idea-objects'), the negative judgment that 'these and these characteristics *and no others* appear in this series'. Classification of general ideas.] **G. M. Stratton.** 'Eye-movements and the Æsthetics of Visual Form.' [The eye moves far less accurately over an outline than has commonly been supposed; it takes a course which is but a rough approximation of the form which we perceive. We thus have evidence of a striking introspective illusion, due to confusion of point of attention with point of ocular fixation; and we must give up the theory that the preference for curves over straight lines is explicable by ease of eye-movement. "The form we enjoy is not a simple sensuous impression, . . . either muscular or retinal. . . . It seems to be due to nothing short of an elaborate mental act of selection and recomposition of the data furnished by the eye."] **K. Thieme.** 'Philosophie der Theologie.' [Methodological considerations, based on the position which Wundt assigns to the philosophy of theology or philosophy of religion in the system of the sciences. "A true science of religion is, on the one hand, a history of religions," and accordingly rests upon the historical disciplines (especially mythology and ethology) and philology. On the other hand, it "attempts, by help of anthropology and individual and social psychology, to give systematic knowledge of the religious life". Since, however, the religious elements of the mental life satisfy the deepest needs of man's affective and conative nature, "so gebührt der Religionswissenschaft eine einzigartige philosophische Bedeutung im Kreise der Einzelwissenschaften".] **E. B. Titchener.** 'Ein Versuch die Methode der paarweisen Vergleichung auf die verschiedenen Gefühlsrichtungen anzuwenden.' [Concludes, on the basis of experiments with harmonium tones and time intervals by Cohn's method of paired comparisons, that excitement and depression, tension and relaxation, are not simple affective processes, like pleasantness and unpleasantness, but complex feelings.] **A. Vierkandt.** 'Die Gründe für die Erhaltung der Cultur.' [Enumeration of the formal and material grounds, with discussion. If we group together the formal and the secondary material grounds as 'subjective,

the primary material as 'objective,' we may say that removal of the former gives us the civilisation of the Illumination, removal of the latter that of a thorough-going Relativism. The true path lies between these extremes. At the same time, "der wahre Sachverhalt liegt dem conventionalistischen Extrem näher als dem idealistischen. Der Eindruck, den wir von den Grundlagen der Cultur und deren gesammtem Charakter durch unsere Betrachtung erhalten haben, ist ein vorwiegend pessimistischer."] **W. Weygandt.** 'Beiträge zur Psychologie des Traumes.' [Deals especially with the alienation of consciousness at the oncoming of sleep. In drowsiness, certain somatic and other continuous weak sensations, not the object of attention in the waking life, come to the front; at the moment of falling asleep, these presomnic sensations pass over into dream ideas.] **W. Wirth.** 'Zur Theorie des Bewusstseinsumfanges und seiner Messung.' [A paper of nearly 200 pages—naturally without summary! The author reviews the previous work, historically and critically; makes valuable contributions to the methodology of the subject; and briefly reports experiments of his own with an improved tachistoscope.] **J. Zeitler.** 'Taine und die Culturgeschichte.' [Taine's method and ideals in the writing of history: his theory of the influence of environment, psychological analysis of historical sources, historical objectivity, criticisms of other historians, etc. "Er hat den Weg zu einer historischen Typenlehre gezeigt. . . . Er war einer der erster Forscher, der eine unbedingte Causalität von der Geschichte forderte. . . . Er war nicht nur ein Geschichtsforscher: . . . er war auch eine schöpferische Individualität, . . . ein Genie der historischen Apperception."]

Philosophisches Jahrbuch. Bd. xvi., Heft 1. **Jos. Klein.** 'Ueber die Wichtigkeit der Psychologie fur die Naturwissenschaften.' [Follows Aristotle's *De Anima*, dealing first with the vegetative soul, and then with the sensitive. In connexion with this last he points out a 'gross fallacy' fallen into by J. Müller the physiologist, Dubois, Helmholtz, Fick and Aubert, asserting that what we cognise in sight has no similarity with the thing seen. On the contrary, it *is* the thing seen.] **E. Rolf.** 'Die Unsterblichkeit der Seele nach . . . Plato und Aristoteles.' [Here the writer indicates Aristotle's proof of the immateriality of the soul: the thinking act is essentially different from matter, and argues an existence which is not matter, and which therefore can exist separately after death. **C. Th. Isenkrahe.** 'Ueber die Zeit.' [The writer defends his theory—*viz.*, that time is not founded in movement or change, but in the fact that things which exist in time are creatures—against several objections; and he concludes by admitting that, in his theory, the *ævum* or duration of spiritual substances would have no place.] **E. Hartmann.** 'Die sinnliche Wahrnehmung nach Pierre d'Ailly.' [This paper, which is the first of two articles, deals with the general Scholastic Theory of Cognition as expounded by Pierre d'Ailly (the Magister Sententiarum) whom Aquinas followed closely; and enters into a detailed explanation of what was meant by the 'species impressa' and the 'species expressa,' and how these are supposed to act in the theory.] **A. Müller.** 'Zur Analysis des Raumes.' [This (also the first of two articles) is an extremely bold attempt to demonstrate that space is a being existing independently of extended bodies, and a *substance*. Bd. xvi., Heft 2. **A. Straub.** 'Die Aseität Gottes.' [This is the first of a series of articles. The author, starting from the idea of Aseity—the Not-being-from-any-other—of God, who is the cause of all that needs a cause, and Himself needs none, attempts to show that it is the basis both of God's existence and of His attributes, not as a cause but analogically to a cause, in that we infer

them therefrom.] **C. Gutberlet.** 'Die natürliche Erkenntnis der seligen.' [This, the first of two papers, examines the question of the double cognition of the blessed; one which proceeds from the *visio Dei*, and the other from their natural powers. Now the natural faculties of cognition in this life cease with death, and the soul has no power to know itself by itself; since, therefore, the soul is immortal it is necessary and natural that certain species or intelligible perceptions should be infused into it at the moment of death, else it would be annihilated. This cognition, without the aid of any extended mental image, is not natural, nor is it contrary to nature; but it is preternatural.] **E. Hartmann.** 'Die scimliche Wahrnehmung nach Pierre d'Ailly' (Peter Lombard). [The most important point in this concluding article is the statement that the cognition of sensible things, although it takes place by means of an image, or resemblance, of the thing cognised, is not *that* image, which is never known directly, only by inference.] **St. Schindele.** 'Die aristotelische Ethik.' [Aristotle's idea of virtue is a mean between two contrary extremes; a mean which is geometrical, not arithmetical, and appreciable in reference to the subject. Scholastics had to part company with Aristotle in many points, or make him say what he did not. Evil is to him the mere struggle between the intelligence and the senses, not the depravity of the will. He to some extent sacrifices the individual to the State. He makes a virtue of magnanimity and a vice of humility. He blames suicide only as an injustice to the State. And his political conceptions are too narrow, too Greek.] **P. Beda Adloch.** 'Glossen zur neuesten Wertung des Anselmischen Gottesbeweis.' [This is a defence of St. Anselm's argument for God's existence against Graf de Vorges. His dilemma was: If God is the being than which none greater is conceivable, do I conceive this being, or no? If I do, there is something greater: if I do not, how can I know it to exist really?]

Rivista Filosofica. Anno v., Vol. vi., Fasc. iii. May-June, 1903. **G. Chiapelli.** 'Il valore teoretico della storia della filosofia.' [The history of philosophy should be studied as part of the general history of civilisation. We must avoid the mistake of regarding past systems as stages in the evolution of some one system whose finality is assumed. But there is a progress in thought; and even when the same problems recur their apprehension becomes widened and deepened in course of time.] **A. Zuccante.** 'La donna nella dottrina di Platone.' [Shows how Plato in some ways departed from and in others developed the Socratic view of women.] **A. Faggi.** 'Filosofia, storia, arte.' [Suggests various means for reviving the interest, now lamentably deficient, of the Italian public in philosophy, and especially in native philosophy.] **O. Bottero.** 'L'*Octavius* di M. Minucio Felice.' [Shows the dependence of Minucius Felix on Cicero and Seneca.] Rassegna Bibliografica, etc.

VIII.—NOTES.

PROFESSOR BAIN.

Born in Aberdeen on the 11th June, 1818, Professor Alexander Bain was in the eighty-sixth year of his age when he died, at Ferryhill Lodge, in his native city, on the 18th September, 1903. The length of his life was a marvel to those who knew him in earlier days; for he was then fragile and delicate in health, and few who were acquainted with him when he returned to Aberdeen in 1860 to occupy the Chair of Logic at the University would have predicted for him a life of more than a few years' duration. The secret of it was his indomitable spirit and his deliberate acceptance of a strict regimen, not to be interfered with save for the most cogent reasons and on the rarest occasions. His daily life, at any rate from the beginning of his professorial days, was portioned out in the most methodical manner. There was a time for work and a time for exercise, a time for diet and a time for rest, to which he adhered, not only when he lived at home, but when he travelled abroad and when he visited friends. A pure holiday, in the sense of absolute cessation for the meantime from the usual task, was unknown to him; and the fulness of his life was conditioned by the regularity and simplicity of his habits.

In boyhood he had a hard struggle. His father, who had been a soldier, was a handloom weaver, and the son, when he got beyond the message-boy stage, had to help him in his occupation. This continued even during Bain's student days at the University; and people still living remember the eager intellectual youth, after returning from Marischal College, doffing the red academic gown, throwing it on the loom, and proceeding with the manual duty, albeit having a book open before him. It is the story of genius asserting itself. When attending Gilcomston School as a boy, he attracted the notice of one of the Marischal College professors (Dr. Cruickshank), who was surprised, on examining him, to find the extent and accuracy of his knowledge. The result was that, somewhat later on, he was taken by the hand by Dr. Cruickshank, through whose encouragement and that of several other cultured Aberdonians young Bain was able to enter Marischal College at the age of eighteen, in 1836. Previously to this, however, he had given proof of his mental faculty to a band of aspiring youths with whom he associated, and who all recognised in him a leading spirit. The result was that, when a political dinner was given to James Adam, editor of the *Aberdeen Herald* (the local Liberal paper of the time), young Bain's reputation for able speaking was such that, although he had only just entered his first year at Marischal College (or, in northern academic phraseology, had become a "bajan"), he was selected to return thanks for the toast of "Principal Dewar and Marischal College," and did so in a speech (a

report of which is still extant) that gave no uncertain indication of the psychological and dialectical power that he was yet to display.

His University course was a brilliant one; and he graduated M.A. with highest honours, having carried off, in the previous year, the blue ribbon of the Gray mathematical bursary of £30, tenable for two years. Perhaps, however, the main significance of his student days lay here, that he came under the influence of two very strong men—Dr. Cruickshank, Professor of Mathematics, and Professor Thomas Clark, the Chemist,—to whom he often referred in after-life with much appreciation, and to whom he was not slow to acknowledge his indebtedness; and he derived also a lasting stimulus from Dr. William Knight, Professor of Natural Philosophy, in whose subject he excelled. He was, further, the first man of his time in the class of Moral Philosophy, under Dr. Glennie—for whom he was presently to act as substitute during four years of the Professor's illness. It was this combination of mathematical and scientific knowledge with philosophical acquirements that early laid the foundation of that ready faculty of illustrating logical principles and psychological processes from the departments of science that was to characterise his writings later on.

There is no need for me to pursue the narrative in detail. It was during his University course also that by a criticism of Sir John Herschell he was first brought into contact with J. S. Mill, through John Robertson, a fellow-Aberdonian, then joint-editor of the *London and Westminster Review;* and thus began an acquaintanceship which ripened into a close friendship that ceased only with death.

After various annual summer visits to London, Bain settled there for a time, having received an appointment under the Board of Health, where his chief was his intimate friend, Edwin Chadwick. He soon came into close contact with the leaders of thought, including George Grote and George Henry Lewes. He was now fully on the way to intellectual eminence. His first work—*The Senses and the Intellect*—appeared in 1855, and marked what may almost be designated an epoch in British psychology. Those who know what psychology was before the appearance of this treatise and what it by-and-by became, in great measure through this presentation of a new standpoint and the application of a new method, are aware of the immense debt that psychology owes to Bain. It was not only that he improved the subject—he revolutionised it. And when, four years later, *The Emotions and the Will* appeared, psychological workers in our country felt they had now got a real advance in a department of investigation whose methods had lain under the imputation of being loose and non-scientific. The effect was soon apparent. The principles enunciated were taken up and applied in many directions; and the abiding tribute to the worth of the treatises lies in this, that what is best in them has been assimilated by more recent psychologists, and that, even when the debt is unacknowledged, no psychologist at the present moment can free himself from the influence of them—he works, of necessity, in the atmosphere that they created.

But it is a mistake to suppose that Bain's psychology is confined to his two great psychological treatises. His educational volumes too are permeated by his psychological views. Not a few teachers have complained that his *Education as a Science* is dry and hard to master, and so have set themselves to decry it. They could scarcely have been expected to do otherwise. Only one of two courses was open to them—either to submit themselves to be taught scientifically on psychological lines or else to oppose. But the value of the book is not to be estimated by counting heads. The educational work has yet to be written that sur-

passes it in clear insight into the psychological principles that underlie education and in the masterly application of these principles to the case in hand. In like manner, psychology permeates his *Rhetoric*—more especially in the latest two-volumed edition. The analysis of the intellectual and of the emotional qualities of style is psychological to a degree; the very figures of speech are grouped under the two psychological headings of Similarity and Contiguity; and, if a full and adequate idea is to be obtained of Bain's handling of the Emotions, it is to be got only by adding to the presentation in *The Emotions and the Will* the analysis and treatment in this latest form of the *Rhetoric*.

Nor is Bain's psychology to be estimated solely by the earlier presentment of it. In some of the notices that have appeared since his death, his doctrines have been criticised on the basis of the first or the second edition of his writings; and some have even expressed their surprise that he had so little appreciation of the doctrine of Evolution. The best answer to any such criticism is to refer the critic to the third edition of *The Emotions and the Will*, and to the fourth edition of *The Senses and the Intellect* and the *Dissertations on Leading Philosophical Topics* (mainly reprints from MIND). It is there that Bain's fullest and maturest views are to be found; and it is by these that his teaching should be judged.

As a logician, Bain followed J. S. Mill; but not without many emendations, restrictions, and additions. His early intimacy with the writings of Comte led him to place stress on the classification of the sciences; and so he introduced a section in his *Logic* on this very subject. In like manner, his scientific knowledge and his wide scientific interest constrained him to view Causation in the light of the Conservation of Energy, and made possible the detailed handling of the logical aspects of the Sciences that we find in Book V. of the *Logic*. His dissent, on the other hand, from the claim that Mill's theory of reasoning had bridged the chasm between induction and deduction led him to expound his own views of the function and value of the syllogism.

But the logician comes out also in other of his writings than those devoted specially to logic. In particular, it is conspicuous in his treatises on Grammar. Indeed, his *English Grammar* has recently been designated "the only logical grammar in the English language". That certainly is its merit, though it will be regarded as its defect by those who maintain that logic has nothing to do with grammar. Logic has to do with every department of knowledge, according to Bain; and he revelled in the practical applications of logical doctrines. He was a master of method in the best sense of the term—not only preaching the theory but amply exemplifying the practice.

It was thus that he was able to revolutionise the teaching of English in the Northern Counties of Scotland—which he did in the "sixties" partly by his published writings and partly by his prelections in the Chair of Logic (for, in those days, English was taught, in Aberdeen University, by the Professor of Logic). Lennie and the contemporary authorities had to be superseded, and the wooden method of dinning into the pupil a number of rules to be learned by rote without perception of their real meaning, had to be replaced by the method of awakening in the pupil intelligent appreciation of the principles involved and of creating, through practice, a ready and accurate use of them. The plan and the procedure were distinctively logical, and they had their limitations; but testimony to their value is borne by the fact that hundreds of Aberdeen graduates scattered throughout the world, many of them occupying high educational positions, are forward to acknowledge their indebtedness to the English teaching that they received from Dr. Bain in their University days.

As a teacher in the class, Bain occupied a unique position. He was a strict disciplinarian (an inheritance, no doubt, from Professors Cruickshank and Knight); but his own personality commanded respect and obedience. His gestures, as well as his voice, were very significant, and told with effect upon his audience; and, as his expositions were always lucid and methodical and aided by unlimited supply of appropriate illustrations drawn from all the provinces of literature and science, the interest of the student was secured, and his attention easily maintained. Moreover, the impression that he made upon his pupils was that of a master of his subject. He was no mere follower even in his mode of lecturing: everything he did had a touch of individuality, and his examination papers (especially in English) were drawn up in a manner different from that of everybody else.

In University affairs, he was always in the van of reform. He had a keen appreciation of defects, and a definite perception of how they might be remedied. Nor could he rest satisfied till some attempt were made to remedy. Hence, he advocated strenuously in the Senatus and in the General Council (and, later, in the University Court), and at first almost alone, the necessity for a Royal Commission, which should legislate for the widening of the curriculum, making provision for certain options, and giving science and modern languages their due place (as against the practical monopoly enjoyed by the classics) in a University education. For years, he was a voice crying in the wilderness; but undaunted he went on, and, when the change actually came in 1890, on the lines that he had advocated, he had the satisfaction of feeling that he had all along been on the side of progress.

But his educational energy was not confined to matters academic. In his early days, when as a lad he was educating himself, he had found immense help in the Mechanics' Institute of Aberdeen, where lectures were given to youths struggling to improve their minds and eager to acquire some knowledge of science and its advance. To this Institution he attached himself and took active and practical interest in its welfare to the very last. Similarly, he was a moving spirit in the matter of Free Public Libraries, and continued a member of Committee of the Aberdeen Public Library from its beginning till advancing years rendered his attendance at evening meetings impossible. So also he was an active member of the first School Board of Aberdeen, on which was laid the task of starting the new system on right lines. The same educational zeal led him, not unfrequently, to deliver lectures to scholastic bodies—sometimes in England, sometimes in Scotland—usually with the view of initiating discussion, but also for the purpose of imparting guidance. In this way, his influence came to be felt in many directions and in diverse quarters. Often he discoursed on educational topics to the Aberdeen Philosophical Society (the successor of that which Thomas Reid originated in the eighteenth century), of which he was for many years president, and to which some of his earliest scientific contributions were made—going back to the year 1843.

Untiring energy was his characteristic. Possessed of original ideas, he lost no time in formulating them and spared himself no pains in spreading a knowledge of them and, if need were, in defending them. He had also a living interest in the ideas of others, and wished to have them duly discussed. Hence his noble act of originating this journal (MIND) and of remaining its sole proprietor during the first sixteen years of its existence. He was a born controversialist, and delighted in discussion. He was not seen at his best till he had an opponent directly to meet. It was then that the keen logical intellect showed its full strength and manifested a power of dialectic worthy of Aristotle.

But the usually unimpassioned nature had a fount of emotion in it. This was known only to a select few. It certainly could hardly be gathered from his writings. His was a manly nature, which scorned to do mean things; but it was also a generous nature, and a nature interested in the welfare and thoughtful even for the comforts of others. The few favourite pupils who came to have intimate relations with him know how untiring he was in promoting their interests, and how unselfish he was in helping them in their work to whatever extent they might draw upon him. Their success gave him unbounded satisfaction. But to his friends in general (always a limited number) he had an open heart. He entered alike into their joys and into their sorrows; and, though not demonstrative, his sympathy was always sincere.

In Dr. Bain's death, psychology has sustained a great loss; but so too has education and practical reform. It is rare to find a philosopher who combines philosophical with educational and practical interests, and who is also an active force in the community in which he dwells. Such a combination was here. Let us not fail to appreciate it.

WILLIAM L. DAVIDSON.

The above brief sketch will be followed in the next number of MIND by an article containing a full appreciation of Dr. Bain's pre-eminent services to Psychology and Philosophy, and a further reference to his "noble act of originating this Journal and of remaining its sole proprietor during the first sixteen years of its existence".

ED.—G. F. S.

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THE Annual General Meeting of the Association was held on 31st October last in University College, London. It was resolved that the general meeting next year be in Oxford in June; and that members of the Association should, on application to the Treasurer, have the privilege of purchasing at half the published price all the back numbers of MIND that are the property of the Association, *i.e.*, the New Series. The following is the full list of the officers and members of the Association :—

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NEWS AND CORRESPONDENCE.

DEATH OF MR. HERBERT SPENCER.

THE death of Prof. Bain has been quickly followed by that of his great contemporary, Mr. Herbert Spencer. Mr. Spencer died on the 8th of December, 1903, at the age of 83. An Obituary Notice will appear in the April number of MIND.

WILDE READERSHIP.

Mr. W. McDougall has been appointed to the Wilde Readership in the University of Oxford.

GENERAL INDEX TO "MIND".

A general Index to MIND, N.S. (1892-1903 inclusive), is in preparation and will be on sale in a few days.

CORRESPONDENCE.

The Editor regrets that owing to a mistake the following note did not appear in the July number:—

Dr. Bain regrets that Mr. Bradley's paper, "Is there such a thing as Pure Malevolence," the copyright of which belongs to Mr. Bradley, should have been, through an inadvertence, printed *in extenso* without his permission, as part of a discussion in Dr. Bain's book: *Dissertations on Leading Philosophical Topics*, pp. 84-88. The paper was published in MIND some twenty years ago, and Mr. Bradley does not wish it to be considered as being now a wholly adequate statement of his views.

MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY

I.—PROF. BAIN'S PHILOSOPHY.[1]

By William L. Davidson.

When Prof. Bain was a student in Marischal College, Aberdeen, in the early "forties," the philosophy that was taught, and taught with literal adherence to the masters, was that of Reid and Beattie. In this he was duly instructed in the Class of Moral Philosophy and Logic; and although he came by-and-by to dissent from many of its leading doctrines he nevertheless derived from it an impulse to the study of psychology on an experiential basis and retained the aversion to unbridled metaphysical speculation that characterised the Scottish School. He learned here sanity and caution, and a reverence for actual fact. When, somewhat later, he came to be associated with John Stuart Mill and George Grote and imbibed the teaching of Auguste Comte on its scientific side, he made no real breach with the Scottish aim and method: he simply carried them forward, and re-examined the data on the same plan, though with greatly different results. To him, as to Reid, induction became supreme; and truth commanded his adherence only when it could be justified by experience.

But, with fundamental agreements, there were vast differences. On the one hand, he set himself to an independent analysis of mental phenomena and processes, and achieved therein a success that went far beyond anything attained by the Scottish philosophers; and, on the other hand, he carried

[1] Supplementary to my Note in Mind, No. 49, pp. 151-155.

the principle of Association thoroughly into his explanation of Mind—on its emotive, its intellectual, and its volitional side alike,—so that the conception of "faculties," as distinct and independent entities, was swept away, and psychology was finally freed from the intrusion of metaphysics. With this was joined his insistence on the intimate relation between physiology and psychology and the necessity of making prominent the physiological reference in the handling of mind, both with the view of ascertaining the exact nature of psychical facts and of rendering mental science truly scientific. As stated by himself in the first preface to *The Senses and the Intellect*, his object was to "construct a natural history of the feelings, upon the basis of a uniform descriptive method". For this task, his previous acquaintance with many branches of science (mathematical, physical, and biological), no less than his own natural inclination, pre-eminently fitted him. The result was a new view of the mind, consistently carried out, on positive principles, and psychology was started on lines of investigation that were to be ever more and more productive of good results.

Be it noted, then, at this stage, that Prof. Bain was, as most British philosophers have been, under the influence of the leading scientific conceptions of the moment. It may be affirmed generally that the advance in psychology in our land has very much followed the advance in physical research. The theory of sound, for instance, was the outstanding physical theory in the time of Hartley. Consequently, he proceeded to interpret mind according to the analogy, and to represent the nervous process as simply propagations of vibrations as in sound. Chemistry, in like manner, came to the front in the days of Mill. Consequently, the process of Association was interpreted in terms thereof—it was set forth as a kind of mental chemistry. So, in Dr. Bain's time, physiology was attracting much attention, and the work of Johannes Müller in particular was greatly in evidence, and there was also an awakened interest in biology. Hence, the physiological reference became prominent, and the method of natural history pointed the way to Dr. Bain's mode of procedure.

I.

The mind itself was, in the first instance, conceived as in relation to the body—its correlative or concomitant. This led to an elaborate study of the brain and nerves and to reiterated emphasis being placed on the functional unity of the

nervous system. Thus parallelism became the guiding idea —which, in one place, receives a semi-metaphysical expression thus,—"The arguments for the two substances have, we believe, now entirely lost their validity; they are no longer compatible with ascertained science and clear thinking. The one substance, with two sets of properties, the physical and the mental—a *double-faced unity*—would appear to comply with all the exigencies of the case. We are to deal with this, as in the language of the Athanasian Creed, not confounding the persons nor dividing the substance. The mind is destined to be a double study—to conjoin the mental philosopher with the physical philosopher; and the momentary glimpse of Aristotle is at last converted into a clear and steady vision" (*Mind and Body*, p. 196). Hence, a systematic plan was devised for the description of the feelings —a plan deliberately conceived and rigorously adhered to— in which their physical origin and manifestation were duly noted, as well as their mental characteristics.[1]

Dr. Bain's view of the activity of the mind was conditioned by the great stress that he put upon muscular sensibility. He started with the muscular sense, and posited a native spontaneity of the system—a spontaneity that is not dependent upon external stimulus, but that originates in the fulness of the nervous centres. It is the discharge of surplus energy, effectuating movement, and leading thereby to experiences of comfort or discomfort, of pleasure or pain. In this we get the origin of the will; for movements that give pleasure, although they are at first random, are persisted in and so come to be sought after, while those that give pain are desisted from or avoided. In connexion with the muscular sense, also, was raised the question of the sense of innervation. It was Bain's contention that "as the nerves supplied to the muscles are principally motor nerves, by which the muscular movements are stimulated from the brain and nerve centres, our safest assumption is, that the sensibility accompanying muscular movement coincides with the *outgoing* stream of nervous energy, and does not, as in the case of pure sensation, result from any influence passing inwards, by incarrying or sensitive nerves".[2] The tendency in recent times has been to lay the stress the other way— that is, on the afferent impressions and not on the efferent discharge of energy, and, while some have emphasised the joint-surfaces, others find the solution in tension of the skin. Nothing that has been advanced on these lines seemed

[1] See *The Senses and the Intellect*, 4th ed., p. 74. [2] *Ibid.*, p. 79.

conclusive to Dr. Bain; and, in face of the fact that feelings of expended energy are to our consciousness entirely different from and even opposed to sensations or passive feelings, he continued to maintain his position: "no other hypothesis so well represents the total opposition of nature between states of energy exerted and states of passive stimulation". Yet, he quite realised that the question is one for physiology rather than for psychology, and that the determination of it one way or another does not affect "the evidence of our subjective analysis". This comes clearly out in the latest edition of *The Senses and the Intellect*, where the statement of the previous edition is given in an amended form.

Still connected with the active side of the system is the importance that Prof. Bain attaches to the Instincts, as primordial elements of mental life. The term "instinct" is here used, however, in a wide sense, so as to include, among other things, reflex actions and primitive combined movements. All the kinds of instinct are characterised by this, that they are native to the individual, serviceable to his being, and not gained by experience, although, of course, they need not all appear full-blown at the very opening of the individual's life. Their significance as primitive endowments on which education or acquisition proceeds comes out when we consider their connexion with pleasure and pain. This is given in the Law of Self-conservation, *viz.*, "that states of pleasure are connected with an increase, and states of pain with an abatement, of some, or all, of the vital functions". Supplementary to this is the Law of Stimulation, determining the limits of pleasurable feeling both in the case of the natural stimulants of the senses and the emotions and also in the case of narcotics and drugs. Its purport is, that "we possess a certain amount of nervous vigour or irritability, which is converted into the full actuality of pleasure, only when impelled by shocks that have no nutritive tendency, but merely draw upon, and consume, the accumulated power. If we apply stimulants, up to a certain point, we do not dissipate force beyond what will be repaired; if we fall short of that point, we miss the pleasure that our frame is able to sustain; if we exceed the point, we run into a declension or a degeneracy. It would seem that we can afford both the natural stimulation of the senses, and a certain amount of stimulating drugs, and yet not overdraw our allowance of nervous power."[1] In this sphere of investigation Dr. Bain practically led the way in Great

[1] *The Senses and the Intellect*, 4th ed., p. 316.

Britain, and his teaching has greatly furthered the advance of psychology.

But now comes the mind's activity in relation to the intellect. Dealing with sensations that come to it from without, the mind has the twofold power of retention and of discrimination regarding them,—that is the basis of the intellect; and "no law of the intellect appears to be more certain than the law that connects our discriminating power with our retentive power. In whatever class of subjects our discrimination is great—colours, forms, tones, tastes—in that class our retention is great." The mind, then, is not purely passive, but is essentially active: even feeling is not bare passivity, for it involves consciousness of change, and that means discrimination.

This introduces the Law of Relativity, which plays such a prominent part in Bain's psychology. The statement of it is after the type of the older psychologists; but the use made of it is special to the writer. It is the one commanding principle, pervading the whole of our mental acquisitions. "An object," it is said, "has no meaning without a subject, a subject none without an object. One is the complement or correlate of the other; drop the one to exalt the other into prominence, and you behave like him who could cancel the south pole of a magnet to make it all north. Subject and object are one of the innumerable couples, mutual foils, polar pairs, coined among the universe of our impressions as portions of our knowledge. An everlasting light in the eye would be equivalent to no light at all; it is the privative darkness that keeps us conscious of, or mentally awake to, positive illumination. . . . An absolute object or an absolute subject is a pure absurdity, irrelevance, or impossibility. Not more so, however, than light without darkness, redness without any other colour, high without low, straight without curved, greater without less."[1] So too with feeling. "The sensation of heat has no absolute character; there is in it a transition from a previous state of cold, and the sensation is wholly relative to that state. It is known, with regard to the feelings generally, that they subsist upon comparison; the pleasure of good health is relative to ill health; wealth supposes comparative indigence." It is obvious that the statement here is in some respects extreme, and Dr. Bain himself admitted this when he allowed that there is point in Dr. Ward's criticism that "the transition need not be from heat to cold, or *vice versâ*: it can equally well take place from

[1] *The Emotions and the Will*, 4th ed., p. 574.

a neutral state, which is indeed the normal state, of neither heat nor cold. . . . Again, suppose a sailor becalmed, gazing for a whole morning upon a stretch of sea and sky, what sensations are implicit here? Shall we say yellow as the greatest contrast to blue, or darkness as the contrary of light, or both?"[1]

The doctrine of Relativity was bound up with Bain's conception of Consciousness, and led to the elaborate efforts in *The Emotions and the Will*, in the *Dissertations*, and elsewhere, to define consciousness, or, at any rate, to ascertain its nature and characteristics with some degree of precision. He viewed the term as a collective name, and used the defining expedients of antithesis and discrimination, as well as historical reference, to make plain what this signified; and he was explicit in maintaining that "consciousness" should not be extended into "self-consciousness," unless by "self" is simply meant our subjective, in contrast to our objective, attitude in experience: in any metaphysical sense, it was to him an unmeaning word.

The relation between the senses and the intellect was brought out explicitly in Dr. Bain's doctrine of the seat of revived impressions. The tendency of ideas to work themselves out into actuality was to him very significant, and it coincided with the phenomenon of "the fixed idea" in enforcing the view that, in resuscitation, "the renewed feeling occupies the very same parts, and in the same manner, as the original feeling, and no other parts, nor in any other assignable manner".[2] This was to identify the revived with the actual feeling, and thereby was of practical value in enabling us, in some measure, to localise the processes of thought and thus to shorten our labour by permitting us to transfer much of our knowledge of the one to the other. "The properties that we find to hold good of sensation in the actual, we may, after a certain allowance, ascribe to the ideal. Thus the qualities of the sense of sight in any one person, as, for example, its discriminating power, would belong likewise to the visual ideas. The senses are, in this way, a key to the intellect."

Given, then, sensation and instinct and the spontaneity of the system, and given the mind's native power of retentiveness and discrimination, how is our knowledge, and ultimately our whole mental structure, built up? It is done by Association, working in the two forms of Similarity and Contiguity.

[1] Article "Psychology" in *Encyc. Brit.*, p. 49.
[2] *The Senses and the Intellect*, 4th ed., p. 356.

In this way, Dr. Bain was able to dispense with the treatment of the Intellect in the then-recognised fashion by "faculties" and to present mind as a unity, working in definitely ascertained ways and according to laws that might be scientifically determined. The stress of the effort lay in tracing the origin of such notions as space and time, and in explaining how we reach the conception of an external material world. It was a difficult and hazardous task; but the execution of it (as all will admit) was done with consummate skill and with great fulness, and, whether the elaboration be accepted as wholly satisfactory or not, it will stand as a monument of psychological ability of extraordinary penetration and vigour and will have to be taken account of for many a day to come. The doctrine was laid down and largely worked out in the very earliest edition of *The Senses and the Intellect;* but, like other of Dr. Bain's doctrines, it underwent development, and every new edition, embodying fresh research from many quarters, added something to the exposition of it and amended the expression at this point and at that. But it was reserved for the latest edition to lay stress on the higher instincts as a basis of our intellectual power, and, therefore, as significant in the present connexion. Here is brought in a direct reference to Heredity as necessary for the full explanation of our cognitive acquisitions. In earlier days, he had represented the development of the mind mainly from the standpoint of the individual's experience. Now he realised that the experience of the race counts for much, and must be taken into our calculations in estimating the growth of our higher notions. Take, for instance, Space. "Our feeling ourselves at home in the external world, from the date of our earliest recollections, implies a vast intellectual endowment, however it be accounted for. That much of it is engrained in us at birth is proved in a variety of ways; the intelligent reading of expression being not the most decisive. In regard to it, the salient circumstance is the inadequacy of our education during the first three years to lead us up to what our consciousness can attest as our power of conceiving the external world at that date. . . . The conclusion arrived at was, that the process could not be completed within the compass of our infant education; and that the accumulated experience of previous generations, hereditarily transmitted, would alone account for the result."[1] There can be little question that by thus definitely recognising heredity he greatly strengthens his case.

[1] *The Senses and the Intellect*, 4th ed., pp. 332, 398: see also 686.

We next expect him, in handling the growth of knowledge in the individual, to bring prominently forward the other great social factor, *viz.*, the formed language into which the child is born and which so largely facilitates his acquisitions. This, however, he does not do, and we note the omission. Nor does he, in dealing with Perception and its problem, keep separate the psychological from the epistemological aspect. This is somewhat surprising, considering how exact he was in keeping the different sciences and standpoints apart and how strongly he insisted on the necessity of such demarcation in the interest of exposition and of clear thinking alike. But everything could not be done at once; and I have little doubt that, if his great psychological treatises had seen the light for the first time to-day, instead of in 1855 and 1859, this separate handling would have been accorded. We see quite well that he appreciated the distinction from what he has said in the *Dissertations* and elsewhere in later references.

Keen as Dr. Bain was in his perception of critical points and ever ready for discussion, it was characteristic of him that, neither in his writings nor in his teaching in the class, did he, like many of his predecessors (*e.g.*, Hamilton), give inordinate attention to the treatment of the intellectual controversies. The problems had all a real interest for him; but he felt that psychology itself must be far wider than a mere handling of selected questions—which frequently, indeed, appeared to him to be merely an ingenious attempt to solve puzzles. The puzzle oftener than not (*e.g.*, that in connexion with the perception of an external material world) arose, so he conceived it, from a distorted standpoint or from the inadequacy of language to express the situation as actually experienced. Hence his insistence, rigorous and reiterated, on the necessity of defining one's terms and of bringing the abstract to the test of concrete particulars (to him, as to Kant, examples were "the go-cart of the understanding"); and hence his regard for such a thinker as Samuel Bailey, to whom definition and the concrete were everything, although his philosophical conclusions might sometimes be disputable and even distasteful. Hence, also, his habit, in examining a new work on psychology, of asking at the very outset whether in it "all the important faculties, or modes of cognition, are brought into fair or proportionate discussion, and whether the laws and processes are introduced in such manner and place as to be elucidated to advantage". According as the writer stood this test or failed under it, he made a favourable or an unfavourable impression. Neverthe-

less, when he published his *Mental and Moral Science*, he developed his exposition of "Nominalism and Realism," of "Experience and Intuition" as competing sources of knowledge, and of "External Perception," appending an historical account of each. This was because he was now writing mainly for the convenience and requirements of students, and so wished to be helpful in every way to the learner; but even then he took care not to obscure his general presentation of the psychological principles and topics. The historical surveys themselves have been found to be of real use; and it is noteworthy that they were the anticipation of a right method which has only now been fully worked out by Janet and Séailles—the method, namely, of treating the problems of philosophy historically, instead of swamping them in a general history of philosophy.

II.

The principles thus adequate to the explanation of senses and intellect are equally applicable when next Prof. Bain proceeded to the emotions and the will. Assimilating emotion to sensation, he was able to apply to the more complex the same natural history method of description that he had so strikingly used in connexion with the simpler, and he reasserted the necessity of taking due account of the physical or bodily expression. In characterising emotion itself, the subjective aspect must be supreme, and the determination of this is got by introspection—on this point he was ever explicit. But he insisted also that we should aim, as far as possible, at gauging quantity in feeling, for the more accurately we can do this the nearer do we approach the characteristic of an exact science; and the estimate of quantity is largely dependent on the objective manifestation. On the other hand, he did not regard it as possible to give, in the strict sense of the term, a classification of the emotions—certainly not such a classification as natural history gives of animals or botany of plants,—so that you might achieve a graded system and settle once for all the order of exposition. All that could be done—at any rate, all that he himself attempted—was to arrange the emotions in certain definite groups or genera (some simple, others compound), and to offer an analysis and characterisation of each, although he felt and frequently said that, if an attempt were made at a proper scientific classification, it must found upon the great contrasting couple of Love and Anger. His analysis of the

various kinds of emotion is subtle to a degree, and marks an epoch in British psychology, having nothing to compare with it at the time when it appeared save that of Dr. Thomas Brown, which it soon superseded, though Dr. Bain himself thought highly of Brown and, in one of his later utterances (speaking of Brown's handling of a point in natural theology), pronounced him to be "one of the acutest minds that ever discussed this or any other theological thesis".[1] Much of Bain's work in this connexion has passed into the current psychologies, and no modern treatment of this department of mental science can pass by without consideration his presentation (say) of Tender Emotion or of the Æsthetic Emotions.

Great care was expended by Bain on the elaboration of the treatment of Sympathy; and his views on this topic underwent development, as seen clearly in the successive editions of *The Emotions and the Will*, as also in the fourth edition of *The Senses and the Intellect* (p. 362), where the inadequacy of "the fixed idea" to explain sympathy is dwelt upon. He was exceedingly explicit in his advocacy of the existence of disinterestedness in human nature and would not allow that our altruistic and extra-regarding acts could be resolved into selfishness or regard to reward or the aiming at ulterior pleasure. This gave a unique character to his position, inasmuch as his general principles required that pleasure and pain should be the ultimate test of action. His contention was: "So far as I am able to judge of our disinterested impulses, they are wholly distinct from the attainment of pleasure and the avoidance of pain. They lead us, as I believe, to sacrifice pleasures, and incur pains, without any compensation. . . . It seems to me that we must face the seeming paradox—that there are, in the human mind, motives that pull against our happiness. It will not do to say that *because* we act so and so, *therefore* our greatest happiness lies in that course. This begs the very question in dispute. . . . This is the only view compatible with our habit of praising and rewarding acts of virtue. If a man were in as good a position, under an act of great self-denial, as if he had not performed it, we might leave him unnoticed. If he has rather gained than lost by the transaction, he could dispense with any reward from us."[2]

Not less significant was his strong and consistent adherence to the doctrine that Malevolence is native to human

[1] *Dissertations*, p. 5.

[2] *The Emotions and the Will*, 4th ed., pp. 295, 296.

nature and one of the most powerful factors in it. It is here that his attitude towards the Evolution Theory becomes very interesting. It was in relation to the Emotions that he first declared himself on this point. Recognising that the theory must ultimately depend for its support on the evidence that can be adduced in its favour, he keenly urged that the nearer acquisition can be assimilated to instinct the stronger will the probability in favour of evolution be. Accepting, then, the theory as a working hypothesis, he allowed that it had a sphere of application in the case of the emotions, but a restricted one. It could explain certain things, and there were certain emotional phenomena that had fresh light thrown upon them by this hypothesis. A great testing case was that of Anger. What special light, then, can evolution throw on Anger? and what in Anger seems beyond its power of explanation? Take the species of anger known as Revenge. "The gratification of Revenge, if illustrated by the hypothesis of Evolution, carries us back to the predatory side of animal life. The struggle for existence involves at once peaceful co-operation and warlike antagonism; and if the one fact is the sufficing fountain of the pleasure of love, the other may be accounted the remote source of the pleasures of hatred and revenge. . . . Granting the evolution hypothesis, we can easily suppose the hereditary transmission of the predatory habits and of the satisfaction accruing from all that has to do with killing both prey and rivals. We are still, however, some way from the essential pleasure of malevolence. We have plenty of the reality of malevolent infliction without the sentiment. In fact, the full-grown sentiment does not appear necessary to the end in view. All that is needed is the impetus to seize and devour a sufficient number of animals to gratify appetite; to take pleasure in the prospect and in all the circumstances and signs of the effect; and finally, to destroy or weaken rivals and whoever stands in the way of the animal's gratifications. The added pleasure of torturing another animal is not called for by the situation; and the feeling at work is not so much being injured as being thwarted. . . . The predatory impulse, therefore, does not involve the pleasure of knowingly causing pain; but probably prepares the way for that refinement, at the proper stage".[1] Other emotions, in like manner, such as Love and Fear, have light thrown upon them by Evolution; but in every case there is a residuum—a something that eludes

[1] *The Emotions and the Will*, 4th ed., pp. 65, 66.

its grasp. On the other hand, there are emotions that scarcely come under the operation of the hereditary principle: such, for instance, are those connected with Property and with Liberty, and, above all, the Moral Sense. Of this last it is maintained that, in so far as it is connected with will, sympathy, and the leading emotions, it may be explained on the theory of development, but "the finishing stroke" in it "is due to Education and Authority," and this "constitutes the moral sentiment a distinct and peculiar phenomenon, different from all the other exercises of Will, Sympathy, and Emotion, or any compounds of these".[1]

When we come to the Will, we see the significance of the stress laid at the beginning on the primordial activity of the physical system, with the two laws of Conservation and Stimulation. Bodily Movements, spontaneously originated, come by-and-by to be co-ordinated and controlled, under the motives of pleasure and pain. This seems corroborated by Evolution, which assumes the three grand postulates of Spontaneity, Conservation, and Retentiveness, and helps towards accounting for such voluntary manifestations as Effort and the graduation of expended Energy. From this as a beginning, the growth of the will is traced, first through volitional associations with the various senses, and, next, through the ascending stages of command over the feelings and emotions, motives or ends, deliberation, resolution, effort, until the highest phase is reached and will attains the stability and strength that is found in the matured experience. The whole process is the result of association, and is explicable on associationist principles. In this way, the handling of the Will was put on a different platform from what it had previously occupied in current treatises on the subject. It had been customary to contract the view, and to concentrate attention on the troublesome problem of the Will's freedom. That question appeared to Prof. Bain to be a mere metaphysical puzzle, originating in the inadequacy of language to cope with the facts of our experience, and not by any means deserving the prominence and importance that had been accorded it. He, consequently, widened the outlook, and thereby gave a fresh impulse to psychology at this point. A new direction was given to the study of the subject, significant for the future, when the attempt was thus made "to ascertain the nature of the faculty itself, its early germs, or foundations, in the human constitution, and the course of its development, from its feeblest indications in infancy to the maturity of its power".

[1] *The Emotions and the Will*, 4th ed., p. 57.

Note must be taken at this point of Dr Bain's handling of Belief. He is peculiar among psychologists in laying the stress, not on the intellectual, but on the volitional, factor in the process, and so in treating the subject under Will. In his analysis, he places emphasis on two points—(1) on preparedness to act as the test of belief, and (2) on primitive credulity as its essential characteristic. At first, we believe everything; and we should go on in this way indefinitely, were it not that we are met by some check or hindrance—are aroused by some shock of contradiction. "The supposition underlying belief is that we are working to a lead, following out some end, by the means that experience suggests, and that, so long as we are successful, we raise no questions as to truth or falsehood; we believe without knowing it. . . . The pristine assurance is soon met by checks; a disagreeable experience leading to new insight. . . . Thus, the vital circumstance in belief is, never to be contradicted—never to lose *prestige*. The number of repetitions counts for little in the process: we are as much convinced after ten as after fifty; we are more convinced by ten unbroken than by fifty for and one against."[1] It is not, then, as James Mill supposed, a case of inseparable association: inseparable association follows the number of repetitions, belief follows the absence of contradiction.

In Ethics, Dr. Bain accepted fully the utilitarian position, but gave a distinct turn to it by his pronounced advocacy of the existence of disinterestedness in human nature—to which reference has already been made. To him Conscience was, of course, not a simple and intuitive faculty, but a compound and derivative thing, whose nature could be analysed and its genesis traced. Society played the prominent part in the elaboration; and the authority of the State, legislating for the community, and enforcing its commands by rewards and penalties, was what gave rise to the characteristic traits of conscience in the individual.[2] But though derivative and not original, though compound and not simple, Conscience does not thereby lose its ethical value. That value depends upon its power to promote man's welfare and happiness. It is neither better nor worse for being derivative, nor would it be better rather than worse for being simple; but its significance is found in its efficacy to discharge the functions specific to it. In this way, Ethics is viewed in a distinctively practical and so in a distinctively English manner—from the

[1] *The Emotions and the Will*, 4th ed., p. 512.

[2] See *Mental and Moral Science*, "Ethics," part i., ch. iii.

standpoint of utility; and its ideality is thrown into the background. Indeed, the idealistic Ethics was repugnant to Bain. With such teaching as that of Green or Martineau he had little sympathy: he regarded it as visionary and elusive, and he disliked it as being based on the notion of man's native dignity or greatness. Such a notion he held to be unconfirmed by experience and suitable simply to minister to self-conceit; and he regarded it as having retarded the scientific handling of Ethics: he thought, in particular, that it had done much harm in connexion with the problem of Free Will. "Of sources of bias," he says (see *Practical Essays*, pp. 29-32), "prejudices, 'Idola,' 'fallacies *a priori*,' this may be allowed precedence. . . . A philosopher of our own day—Sir W. Hamilton—has placed on the title-page of his principal work this piece of rhetoric: 'On earth, there is nothing great but man; in man, there is nothing great but mind'. Now one would suppose that there are on earth many things besides man deserving the appellation of 'great'; and that the mechanism of the body is, in any view, quite as remarkable a piece of work as the mechanism of the mind. . . . Such gross pandering to human vanity must be held as disfiguring a work on philosophy. . . . This originating of a point of honour or dignity in connection with our Will has been the main lure in bringing us into the jungle of Free-Will and Necessity. . . . The weight of the reasoning is, I believe, in favour of necessity; but the word carries with it a seeming affront, and hardly any amount of argument will reconcile men to indignity." This attitude, no doubt, deprives Bain's ethics of the stimulating power that attaches to the idealistic ethics; but it was the logical consequence of his fundamental principles, and it enabled him to express his positions in scientific form.

In *Mental and Moral Science*, he supplemented his general ethical opinions by a series of sketches of ethical systems from Socrates downwards—partly with a view to elucidate the subject, but partly also for the convenience of the student, for whom his manual was primarily intended. These sketches have been criticised as dry and unattractive. So far as the objection has point at all, the reason is not far to seek. A man's philosophy must be taken in connexion with the man himself (his individuality counts for much), and the parts of it must be viewed in relation to each other and to the whole. But here, inasmuch as we have simply summaries or abstracts, upon a uniform and definite plan, the individuality of the philosopher is necessarily eliminated, and the relation of his ethical theory to the rest of his specu-

lation is virtually ignored. The best testimony, however, to the value of this historical section is that it was soon found to be a welcome substitute for Mackintosh's *Dissertation on the Progress of Ethical Philosophy*, which formerly held the field, that it is not yet superseded even by Sidgwick's *Outlines of the History of Ethics*, and that many students have studied it with interest and expressed their indebtedness to it.

III.

A distinguishing feature of Prof. Bain's philosophy was its pre-eminently practical character. It lends itself in an exceptional degree to varied application, more particularly in the sphere of education—as witnessed by his own educational writings, especially the *Rhetoric* and *Education as a Science*. In the preface to the latest edition of *The Senses and the Intellect*, he himself says: "The plan and object of the present work, as well as of its continuation *The Emotions and the Will*, having been conceived more exclusively with a view to practical results, I have seen no ground for materially altering the expository order and the proportions, in the laying out of the details". Everything was to him conditioned by regard to "practical results". It was mainly for this reason—more specifically in order that he might advance philosophy in all its branches and stimulate British psychologists to research and "practical usefulness"—that he took the bold step, eight and twenty years ago, of originating MIND. In the last number of this journal, I called this a "noble act"; and so it was. In the first place, the venture was absolutely new and involved considerable self-sacrifice: the originator stood alone, for no one else in this country was public-spirited enough to attempt the production of a philosophical review. In the next place, it involved an immense amount of preliminary trouble and worry, which any one whose philosophical reputation was already securely established might naturally have shrunk from. There was much apathy to be met; and even some philosophers from whom he expected encouragement stood aloof. In the last place, it was not an enterprise likely to add in any way to the originator's income, but, on the contrary, was likely to cost him much even in money. As a matter of fact, it entailed an annual pecuniary loss, so that, when the sixteen years of his sole proprietorship had expired, it was found that he had sunk several thousands of pounds in it. But his enthusiasm carried him forward, and the thing was done. Writing in 1891, and bidding farewell to his readers, the first Editor of

MIND, referring to the start of the enterprise, said: "That effort, as some know already, has been rendered possible by the public spirit of one man. Why should it not now be openly told, that but for Prof. Bain's generous initiative in 1876 this country might still be without a philosophical organ? Let the fact be borne in mind the next time it occurs to any one to remark the limitations of homebred English thinking. An English psychologist of the traditional stamp was the first to project, and single-handed has ever been there to sustain, a Review open to all the serious philosophical thought of the country and seeking new lights from the whole world around."[1]

Dr. Bain was fortunate in having as his chief counsellor his former pupil and valued friend G. Croom Robertson, who not only aided greatly in planning the project and in securing contributors, but also acted as Editor during all the time of Dr. Bain's proprietorship. Between them, they made a splendid beginning in January, 1876, and, all along to the close, they were able to keep up the success which the first number achieved. The object of the journal is partly given in its title and its sub-title, which were chosen wittingly and after much deliberation. They were intended to indicate in brief the scope and subject-matter, and, in particular, to declare the readiness of the projector to welcome reasoned contributions in all lines of philosophy, while laying greatest stress on psychology as the basal science. But further, and more fully, the object was declared in a preliminary prospectus which was widely distributed at the time, and, again, in the Editor's prefatory words in the first number. There we see the broad spirit in which the project was devised, and the same lines on which it was proposed to proceed. Although mental science was to be supreme, speculation was to be encouraged in every department, so be it that it were legitimated (directly or indirectly) by experience. Starting from experience, it might take as high a flight as ever it cared provided it returned to experience again. So, too, the interest of the various sciences allied to psychology (Logic, Æsthetics, Ethics) were to be duly attended to, and the application of psychology to the purposes of the Educator. It was a broad and liberal-minded programme; and it was worked out impartially, so that no one could say that the journal existed simply for propagating the views of a single school.[2]

[1] MIND, 1st Series, vol. xvi., p. 557.

[2] See also Croom Robertson's article on "Psychology and Philosophy," in MIND, vol. viii., 1st Series, pp. 1-21—reprinted in his *Philosophical Remains*, pp. 250-273.

The successful execution of the plan depended mainly on two things—on the energy of the proprietor and the editor, and on the variety and efficiency of the contributors. The energy was conspicuous from the beginning. If, on the one hand, it could hardly have been possible to secure a more competent and enthusiastic editor than Robertson, it would have been difficult, on the other hand, to find any one who worked more vigorously and contributed more copiously of his best than did Prof. Bain. He expounded doctrines, he set forth new views, he discussed problems, he reviewed books; and the magnitude of his work is only partially seen from the volume of *Dissertations* that was recently published. These are chiefly reprints from MIND (including two articles contributed to the second series); but a considerable part of his book on *Education as a Science* appeared there, as also did portions of other treatises, as well as many smaller philosophical papers that have not been republished anywhere.

But now as to contributors. A glance at the Index of the first series of MIND shows that very many of the great names in philosophy of the last thirty years were enlisted in the service, although names are wanting that one would have expected to find present. Young men, too, came to play their part; and it is to the credit of MIND that it opened its pages so freely to young writers who, though doing good work, were as yet unknown to the world.

What philosophy would have been at this moment in Great Britain had there been no MIND journal started, it is, of course, impossible to say; but it is safe enough to affirm that, through it, philosophical interest in our land has been immensely increased and splendid work has been done in all the departments of mental science, which must command the gratitude of every one who has the welfare and the progress of philosophy at heart. There is evidence also that MIND has stimulated other countries; and, perhaps, it may not be too much to claim that the awakened interest in psychology that soon after its inception began in Germany was, in part at least, owing to it. And the impulse has not yet spent itself. May we not see it operative in *The British Journal of Psychology*, which has just made so brisk a commencement? Bain did not live to see this new development; but it would have met with his full approval, for his interest in experimental psychology was great, though he had a keen perception of its limits.

IV.

Prof. Bain's is a name in philosophy that cannot die. More especially will it be associated with psychology. What British psychologists have been able to accomplish during the last half-century has been in no small degree owing to the lead that he gave through *The Senses and the Intellect*, published in 1855, and through *The Emotions and the Will*, published in 1859. The extent of his influence it is impossible to estimate. It has gone abroad into many lands through his writings—many of which have been translated into diverse tongues. It emanated from his teaching as a professor, and lives in pupils who reproduce his spirit and his method. It is felt by others, not a few, who have attained renown in psychology, but who owe much to him for early counsel and encouragement. But, perhaps, the best testimony to his influence, and certainly the most striking proof of his originality, lies in the fact that any exposition of his distinctive positions must needs seem to the modern psychologist conversant with the subject a mere enunciation of commonplaces. The doctrines are commonplaces now, but they were new, and many of them alarming, when they first appeared. Hardly less significant is the fact that to some those doctrines are a perennial subject of criticism. That is a high compliment. People criticise only what they feel to have weight and potency: harmless, even though distasteful, teaching is passed by in silence. Prof. Bain himself was quite alive to the fact that many of his positions might be superseded in philosophy: he made no exaggerated claim to finality or to infallibility. In August, 1892, when speaking in public on the occasion of the unveiling of his bust placed by the community of Aberdeen in the Public Library, he said: "In the philosophy of the mind, the displacement of one system by another is proverbial. All that we can count upon, when we have done our best, is that some stones may be found to fit into the structures of our successors. . . . Even for the present, I am far from securing unanimity of judgment among those that have taken the trouble to follow me. That I do not complain of: it is not the business of any man to bring round the whole world, or the tenth part of it, to particular conclusions on debated questions. It is enough to have helped a number of people to draw their own inferences, and, in so doing, to improve on their previous knowledge. It is by the testimony of such that a man can be adjudged as an immediate benefactor to his kind, and the presumption is that the influence may last some time longer."

With confidence it may be asserted that there are stones in Dr. Bain's system that will be used, for long time to come, in the structures of his successors; and few will refuse to accord him the merit of having been "an immediate benefactor of his kind". "Pre-eminent," as the present Editor of MIND has phrased it, are his services to psychology and philosophy; and when the history of psychology comes to be written in English, a commanding place will be assigned to him among those who advanced the science of mind in the nineteenth century, and due acknowledgment will be made of the distinctive value of his work.

II.—HEGEL'S TREATMENT OF THE CATEGORIES OF QUANTITY.

By J. Ellis McTaggart.

In this paper, as in my previous papers on the details of Hegel's Logic (Mind, April and July, 1897; January, 1899; April, 1900; October, 1902), I shall consider one of the nine secondary divisions of the process. I shall follow, in the first place, the exposition in the Greater Logic, and add a few words on the rather different treatment adopted in the Encyclopædia.

Quantity (*Quantität*) is the second division of the Doctrine of Being. It is divided as follows:—

I.—QUANTITY (QUANTITÄT).

- A.—Pure Quantity (Die reine Quantität).
- B.—Continuous and Discrete Magnitude (Kontinuirliche und Diskrete Grösse).
- C.—Limitation of Quantity (Begrenzung der Quantität).

II.—QUANTUM (QUANTUM).

- A.—Number (Die Zahl).
- B.—Extensive and Intensive Quantum (Extensives und Intensives Quantum).
  - (*a*) *Their Difference* (*Unterschied derselben*).
  - (*b*) *Identity of Extensive and Intensive Magnitude* (*Identität der Extensiven und Intensiven Grösse*).
  - (*c*) *The Alteration of Quantum* (*Die Veränderung des Quantums*).

C.—The Quantitative Infinity (Die Quantitative Unendlichkeit).

(*a*) *Its Notion* (*Begriff derselben*).

(*b*) *The Quantitative Infinite Progress* (*Der Quantitative Unendliche Progress*).

(*c*) *The Infinity of Quantum* (*Die Unendlichkeit des Quantums*).

III.—THE QUANTITATIVE RATIO (DAS QUANTITATIVE VERHÄLTNISS).

A.—The Direct Ratio (Das Direkte Verhältniss).

B.—The Inverse Ratio (Das Umgekehrte Verhältniss).

C.—The Ratio of Powers (Potenzenverhältniss).

It will be noticed that Quantity is used in an ambiguous sense here, since it is the name both of the whole secondary division, and of the first of the tertiary divisions contained in it. The tertiary division might be distinguished if we gave it the name of Indefinite Quantity, which, as we shall see, would be appropriate to it.

The treatment of Quantity is not one of the most successful parts of the dialectic. Hegel devotes a larger proportion of the Greater Logic to it than he does to any of the eight other divisions. Yet the transitions are frequently obscure, and often appear to owe their obscurity to excessive compression. By far the greater part of the 185 pages which are employed on Quantity are occupied with notes on collateral points. Some of these, indeed, throw additional light on the main argument, but the rest only contain criticisms of Kant's views on Quantity, and of certain mathematical doctrines. Hegel is never at his best when criticising Kant, and this is eminently the case here. The mathematical discussions, again, are too purely technical to give us much assistance in comprehending the course of the dialectic. Moreover, it may possibly be said that on this occasion, as on some others, Hegel yielded to the temptation of criticising a science whose contents were not adequately known to him.

It is easy, however, to exaggerate the effect of such faults in destroying the value of this part of the dialectic. The transitions, though in some cases obscure, can, as I shall

endeavour to show, be understood. And if they are valid, the mathematical mistakes, if such there are, are of small importance. The main object of the dialectic, after all, is to reach the Absolute Idea, and so to demonstrate what is the true nature of reality. Thus the principal function of the lower categories is to lead on to the Absolute Idea. And for this it is only requisite that each of them should validly follow from the one which precedes it, and lead on to the one which follows it.

Now the question whether Hegel's various categories of Quantity do perform this function is not affected by any mathematical mistakes which he may have made, nor can it be settled in the negative by any mathematical criticisms. The only relevant inquiry is whether Hegel was justified in starting the dialectic with the category of Pure Being, and whether the validity of the various categories of Quantity can be shown to be involved in the validity of the category of Pure Being. And this inquiry is a matter for metaphysics, and not for mathematics.

It is true that Hegel's main aim in the dialectic was not his only aim. He wished, not merely to deduce an absolutely valid conception of reality, but to account for other less perfect conceptions, and to range them in the order of their relative validity. He probably believed that the categories with which he dealt in the sphere of Quantity were identical with the fundamental notions of mathematics. In so far as this is not the case, he must be considered to have failed in his subordinate purpose, and, in so far as he has failed, to have introduced additional obscurity by the fact that he has called his categories by the names of the mathematical notions.

But the purpose in which he may have failed is, as I have said, only of subordinate importance for him. And, even in that purpose, his failure would not be a sign of any metaphysical flaw in his system, but simply of mathematical ignorance. If the dialectic process is correct, it will be true of all mathematical conceptions, as of all others, that the way in which we can judge of the degree of their validity will be by means of the dialectic process. If the ideas are themselves stages in that process, the place which they occupy in it will give us their relative validity. If they are not stages in the process, their relative validity can be found by ascertaining the point in the dialectic at which it becomes clear that they are not absolutely valid. For example, as the dialectic passes away from Quantity, it becomes clear that no idea of pure mathematics can be absolutely valid.

For, whether those ideas are themselves categories or whether they are not, it is clear that their absolute validity would imply the absolute validity of the general conception of Quantity, as given in the dialectic. Thus, even if Hegel's judgments about mathematics were all wrong, that would not prevent his dialectic from being the foundation of right judgments on the same subject to a person more skilled in mathematics.

I.—(INDEFINITE) QUANTITY.

A.—Pure Quantity.

This stage (Greater Logic, 212; Encyclopædia, 99 [1]) is, as the Thesis of a new triad, identical in content with the last stage of Quality, but is expressed with greater immediacy. The last stage of Quality was the Relation of Attraction and Repulsion. In this, to recapitulate the conclusion of my last paper (Mind, 1902, p. 526), "The last trace of Quality has now died out. It had almost entirely gone when the Somethings had been transformed into Ones, each of which was exactly similar to all the others. But a remnant still remained, in the shape of the Repulsion which each One exercised on all the rest. Now this Repulsion is swallowed up in a balance of Repulsion and Attraction. The Ones have now become indifferent to each other.

"And with this Quantity has been reached. Quantity involves that the units should be indifferent to one another—that they should be capable of combination or separation without any change in their nature. This is rendered possible by the indifference which has now been established. The Ones are sufficiently under the influence of Attraction to enable them to be brought together in aggregates. They are sufficiently under the influence of Repulsion to retain their separate existence in their aggregates, so that the quantity of the aggregate varies according to the number of its units.

"Quantity requires, also, that the units should be taken as equal to one another. And this condition, also, is satisfied by the Ones, which have no qualitative differentiations,

[1] My references in this paper to the Greater Logic are to the *pages* of vol. iii. of Hegel's *Works* (ed. 1838); my references to the Encyclopædia are to *sections*. It is only the passages in the Greater Logic which I quote as supporting the view which I take. Those to the Encyclopædia give the passages in which the corresponding point is treated in the later work, whether the treatment be the same or different.

and are all exactly alike. At this point, therefore, the dialectic passes over into Quantity."

Pure Quantity then, being nothing but the general notion of Quantity, is identical with the last stage of Quality, except that we are now considering only the results gained, and not the process—the equilibrium of Repulsion and Attraction—by which we gained it. The two elements which up to this point—till Quantity has been reached—have been called Attraction and Repulsion are now, in Quantity, called Continuity and Discreteness. The only difference between Attraction and Repulsion on the one hand, and Continuity and Discreteness on the other, is that which is involved in the passage into Quantity—the perception of the fact that they are inseparable, that, as was demonstrated in the triad of Repulsion and Attraction (G. L., 190-200; Enc., 98), either is impossible without the other.

But, although they are recognised as inseparable, it is still possible to lay a greater emphasis on one of them than on the other. And we begin, Hegel tells us (G. L., 213), by laying a greater emphasis on Continuity. The reason for this is, mainly, that this element is more characteristic of Quantity, though not more essential to it, than Discreteness. For as long as we had only Repulsion the process remained within Quality, but, as soon as Attraction was added, the transition to Quantity took place. Apart from this, there is always a tendency to put most emphasis on the last gained element.

B.—Continuous and Discrete Magnitude.

By a somewhat abrupt transition we come to this category, in which Magnitude is to be taken first as Continuous (G. L., 229). A consequence of this is that there is yet no plurality of Quantities, and that the one Quantity is indefinite. For a plurality of Quantities would require that they should be Discrete from one another. And, again, no Quantity can be definite unless by its having fixed boundaries —that is to say, by being Discrete from the Quantity beyond those boundaries. It is true that, as was said above, all Quantity has an element of Discreteness. But, so far, the only things which are Discrete from one another are the units—the Ones—which are alike Discrete from and Continuous with one another.

Now a One, taken by itself, is not a Quantity at all. For it has no plurality in it. And Ones have no possibility of varying in magnitude. All variations of magnitude are only variations in the number of the Ones. These characteristics

are essential to Quantity, and they are not possessed by isolated Ones. And the isolated Ones being, so far, the only Discrete things, we have as yet no plurality of Quantities or definite Quantity.

(It may appear incorrect to say that a One admits of no plurality. Can we not, it may be asked, conceive an isolated One as consisting of two halves, four quarters, and so on? But when we do this we have passed to a higher conception—that of Discrete Magnitude, which will be the next conception to be reached. A One which consists of parts is no longer the *mere* One, which is all that the dialectic has got at present. It is something which, while from one point of view a unit, is, from another point of view, an aggregate of two or four units. And its nature forms therefore no contradiction to what we have said of the *mere* One which is all we have before us in Continuous Magnitude.

In the same way, we may, and always do, conceive the units of which an aggregate is made up, as having magnitude, and as being capable of having different magnitudes, and of varying in magnitude. But we can only do this in so far as we conceive each of them as made up in its turn of units, and so as not being *mere* units.)

We now pass to Discrete Magnitude (G. L., 229). Continuous Magnitude was formed by passing from One to One in virtue of their Continuity with each other. But each One is as really Discrete from all the others as it is Continuous with them. And this puts it in our power to stop at any One we like, and not to go on to the next. We can thus form a finite Quantity, beginning at any point and ending at any other point. And this Quantity, being cut off by its Discreteness from the indefinite Quantity beyond it, will be a finite Quantity. In the indefinite Quantity, again, other finite Quantities can be formed, and thus we get a plurality of finite Quantities.

In the form of this stage, as presented by Hegel, there appear to be two defects. The first is that no reason is given why we should pass from Pure Quantity to the new stage. The second is that, although Continuous and Discrete Magnitude is not divided into a subordinate triad, yet there is a distinct dialectic advance within it—namely from Continuous to Discrete Magnitude.

These defects seem to me to be merely a matter of arrangement. Continuous Magnitude is not really a fresh stage, or part of a fresh stage, at all. It is nothing but Pure Quantity, since, as we have seen, it does not permit of definite Quantity, or of a plurality of Quantities.

On the other hand, Discrete Magnitude is not merely correlative with Continuous Magnitude. It is distinctly a more advanced conception. It gives us the distinctness and plurality which were lacking before, and it gives them to us by differentiating the relation between Ones—by joining some of them to others, and disjoining them from others again, instead of making the relation uniform.

It is then, in reality, to Discrete Magnitude that the advance from Pure Quantity is made. This is evident in Hegel's text, but is misrepresented by his headings. In order that these should correspond with his argument, he should have dealt with Continuous Magnitude under the head of Pure Quantity, and should have made his second stage simply Discrete Magnitude, instead of Continuous and Discrete.

It should be remarked that, although the transition to Discrete Magnitude lies in the possibility of breaking off the Quantity at any One, this does not mean that it is merely a possible transition. Continuous Magnitude is that which cannot be broken off at any point. Discrete Magnitude is that which can be broken off at any point. When we are forced to admit the possibility of breaking Magnitude off at any point, this is a necessary transition to the category of Discrete Magnitude.

We can break it off, then, at any point we like. But no reason has been given why we should break it off at one point rather than another. Nor can any such reason be given until we have passed out of the sphere of Quantity into Measure. To this point we shall recur later on.

C.—Limitation of Quantity.

(G. L., 231.) Hegel says that Discrete Magnitude as such is not limited. It is only limited as separated from the Continuous. By this, I conceive, he means that, if the Discrete Magnitude were taken in isolation, its final One would not be a Limit, because it would not divide the Discrete Magnitude from anything else. It is only in so far as it is regarded as in connexion with the indefinite Continuous Magnitude from which it has been carved out, that its final term is to be considered a Limit. (On Hegel's use of Limit, cp. MIND, 1902, p. 513.)

The Discrete Magnitude thus shares its Limit with the Continuous Magnitude outside it. It is thus in a definite relation to that which bounds it, and has itself a definite amount. To definite Quantities Hegel gives the name of

Quanta, and so we pass to the second main division of our subject,

II.—QUANTUM.

A.—Number.

(G. L., 232; Enc., 101.) In reaching the conception of a limited and definite Quantity we have reached for the first time the possibility of Number. While Quantity is merely Continuous it cannot be numbered. For then there is no intermediate term between the separate Ones and the whole unlimited indeterminate Quantity. The separate Ones in their separateness cannot have any Number, since each of them is only One. And, on the other hand, Indefinite Quantity can have no Number, since it has no Limit, and without a Limit it cannot have one Number rather than another, that is, it can have no Number at all. But now that we have a definite Quantum, it consists of those Ones which are included between certain limits, and can therefore be numbered.

"Quantity is Quantum," says Hegel, "or has a Limit, both as Continuous and as Discrete Magnitude. The difference of these species has here, to begin with, no meaning" (G. L., 232). This must not, of course, be taken as an assertion that Continuity and Discreteness have no longer meaning as different *moments* in any Quantity. It is only the distinction between Continuous and Discrete *Magnitudes* which has no longer any meaning. And we have seen that the two have been united in Limitation of Quantity. For there it became clear that Discrete Magnitudes, while, as their name shows, Discrete from each other, were also Continuous with each other. In fact, we may say that finite Quantities now stand to Quantity as a whole in the same relation in which Ones stand to finite Quantities—that is to say that they constitute it by virtue of being both Discrete from and Continuous with each other.

Quantity is now indifferent to its Limit, but not indifferent to having a Limit, for to have a Limit is identical with being a Quantum (G. L., 232). The distinction seems to be that it is always essential to a Quantity to have a Limit, but never essential to it to have a particular Limit. Of course, if it had a different Limit, it would be a different Quantity. But then there never is any reason why a Quantity should not be a different Quantity, unless non-quantitative considerations are introduced, which we have no right to do here.

This point will recur again when we come to the Quantitative Infinite Progress.

Hegel further says that the Ones which make up any Quantum are indifferent to the Limit, but that the Limit is not indifferent to the Ones (G. L., 234). As the Limit is that which determines the Quantum to be what it is, it follows that the Ones in a Quantum are indifferent to the Quantum, while the Quantum is not indifferent to them.

This superiority of the units to the aggregate is essential to Quantity, and is implied in all quantitative statements. When we say, for example, $7 = 5 + 2$, we assume that each of the units dealt with will remain unchanged, whether it is combined with more or fewer others. If not, then the proposition would not be true. But the aggregates do not remain the same, regardless of the units. If for example we take one unit away from 7, it is no longer equal to $5 + 2$.

B.—Extensive and Intensive Quantum.

(*a*) *Their Difference.*

Extensive and Intensive Quanta differ from one another in a manner analogous to the difference between Continuous and Discrete Quantity. The distinction between the new pair of terms and the old pair is that Extensive and Intensive refer to Quantitative *Limits* only, and, as the Quantum is identical with its Limit, they apply to Quanta, while, since no Quantities except Quanta have Limits, they apply to no Quantities except Quanta. Continuous and Discrete, on the other hand, are applicable to all Quantities (G. L., 252).

We first have Extensive Quantum. This conception is identical with that of Number, except that its determination is now explicitly posited as a plurality (*Vielheit*) (G. L., 253). I do not see why plurality is more explicitly posited in the conception of Extensive Quantum than in that of Number, nor does Hegel give any reason why it should be so. It can easily be understood, however, that the idea of Extensive Quantum has the same content with the idea of Number. The Extensive Quantum is looked on as primarily a plurality. It is not exclusively a plurality, for, since it is a Quantum, it must be definite, and, being definite, must be Discrete. It is therefore a unity as well as a plurality, but its distinctive mark is plurality. Now this is also the case with Number. A Number is a unity, or it could not be definite. But it is conceived as more essentially a plurality. This is clear from the atomism of Number mentioned above, by which the Ones are indifferent to the Quantum, but the Quantum is not

indifferent to them, which gives the plurality of the Ones a logical priority over the unity of Quantum.

But the plurality contained in each Number is not a plurality of unlike things, but of things with a similar nature, and Continuous with one other. They can therefore be taken as a unity, and, when this is done, we get the conception of Intensive Quantum (G. L., 253; Enc., 103).

The difference between Intensive and Extensive Quantum is one of comparative emphasis. Extensive Quantum has a certain unity, but it is subordinate to its plurality. Intensive Quantum has a certain plurality, but it is subordinate to its unity. The limit of an Intensive Quantum is called its Degree (G. L., 254; Enc., 103). The Degree of such a Quantum is a Majority rather than a Plurality (*Mehrheit* rather than *Mehreres*). And while it may be spoken of as a Number (*Zahl*), it must not be regarded as a Sum (*Anzahl*) (G. L., 254).

(*b*) *Identity of Extensive and Intensive Magnitude.*

The treatment of this point is rather obscure. Hegel says "Extensive and Intensive Magnitudes are thus one and the same determination of Quantum; they are only separated as follows, that one has its Sum inside itself, the other has its Sum outside itself. Extensive Magnitude passes over into Intensive Magnitude, since its plurality falls inherently into a unity, outside which plurality is found. But on the other hand this unity only finds its determination in a Sum, and in a Sum which is regarded as its own; as something which is indifferent to Intensities otherwise determined, it has the externality of the Sum in itself; and thus Intensive Magnitude is as essentially Extensive Magnitude" (G. L., 256).

Does this mean that the two terms are strictly correlative —that they stand side by side in the dialectic process, and that the transition from Intensive to Extensive is of precisely similar nature as the transition from Extensive to Intensive? Or does it mean that Intensive Quantum stands higher on the scale than Extensive, and that the transition from Extensive to Intensive is the transition of the dialectic process, while the transition from Intensive to Extensive merely means that what is seen under a higher category can, if we choose, also be regarded under a lower category?

The words quoted above suggest the first of these alternatives. And this is supported by the passage which immediately follows them (G. L., 257). In this we are told that with this identity we gain a Qualitative Something, since the identity is a unity which is formed by the negation

of its differences. This on the whole suggests that the two terms are to be taken as on an absolute equality.

Nevertheless, it seems to me that the weight of the evidence is on the whole in favour of the view which finds Intensive Magnitude a more advanced stage of the dialectic process than Extensive Magnitude. To this conclusion I am led by three reasons.

In the first place, we cannot safely lay much weight on Hegel's expressions about the Qualitative Something. For the introduction of a Qualitative element here seems merely casual. It is dropped as soon as it has been stated. We hear nothing more of it while we remain in the division of Quantum. The next mention of a Qualitative element comes in the division which succeeds Quantum—namely Quantitative Relation. And when it comes in there, it is introduced quite independently, with no reference to the passage on page 257, and in quite a different way. That passage cannot therefore be considered one of much significance.

In the second place, the transition to the next category (The Alteration of Quantum) does not start from the identity of Extensive and Intensive Magnitudes, but from the conception of Intensive Magnitude taken by itself. This will, I think, be evident when we come to consider the transition, and it would follow that Intensive Magnitude must be above Extensive in the scale of categories, since the movement to further categories passes from the Intensive, taking no special account of the Extensive, which must therefore be considered as absorbed in the Intensive.

In the third place, this view is supported by several passages of Hegel. He says (G. L., 279-280) that the notion of Quantum reaches its reality as Intensive Magnitude, and is now posited in its determinate Being as it is in its Notion. This is supported by the Encyclopædia, where he says (Enc., 104) that in Degree the notion of Quantum is explicitly put. There is also not the slightest doubt that, in the Encyclopædia, Intensive Quantum is higher than Extensive Quantum, for, under the name of Degree, it forms a quite separate division, which is the last and highest division of the whole of Quantity.

On the whole, therefore, although the evidence is certainly conflicting, I think it better to hold that Hegel regards Intensive Quantum as higher than Extensive Quantum. We can easily see why it should be regarded as higher. It emphasises the unity of the Quantum rather than its plurality. In other words, it emphasises the Limit. Now this emphasis of the unity and the Limit carries us farther

away from the indefinite Quantity with which Quantity as a whole began. In that indefinite Quantity there were no Quantities, each with a Limit and unity of its own. Thus the more emphasis is laid on unity, the farther do we get from the previous stage, and this is an advance. And, again, the more the unity of each Quantum is recognised, the more pressing becomes the question why it should be that Quantum, and not some other—the question which will carry us over into the last subdivision of Quantum, which is Quantitative Infinity.

Once again, then, Hegel's titles do injustice to the course of his argument. The real advance is not from the difference between Extensive Quantum and Intensive Quantum to the identity between them. It is rather from Extensive Quantum to Intensive Quantum. And thus it would seem that the two first subdivisions of Quantum should have been (*a*) Extensive Quantum, (*b*) Intensive Quantum.

We have come thus, for the second time in this paper, to the conclusion that Hegel's titles do not do justice to the merits of his argument. In each case the defect arose from the titles taking as correlative two conceptions, of which his argument shows one to be superior to the other. In the first case it was the Continuous and Discrete; in the second case it was the Extensive and Intensive. It may perhaps be the case that the confusion arose from following in the titles the usage of mathematics, for which each of these pairs is a pair of two correlatives which are on a strict equality with one another. Should this be the true explanation, it would add another to the cases in which the consideration of the finite sciences, so far from rendering assistance to the dialectic, has distorted it, and injured its cogency. Such, as I have endeavoured to show in former papers, was the case with the categories of Chemism and Life.

We now come to the transition to the next category. Of this Hegel says: "The Quantum is the determination posited as transcended, the indifferent limit, the determination which is equally the negation of itself. This discrepancy is developed in Extensive Magnitude, but it is Intensive Magnitude, which is the determinate being of this externality, which constitutes the intrinsic nature of the Quantum. It is posited as its own contradiction, as being the simple determination relating itself to itself, which is the negation of itself, as not having its determination in itself, but in another Quantum.

"A Quantum is therefore posited as in absolute Continuity, in respect of its Quality with what is external to it, with its

Other. It is therefore not only *possible* that it should go beyond any determination of Magnitude, it is not only *possible* that it should be altered, but it is posited as *necessarily* altering itself. The determination of Magnitude continues itself in its Otherbeing in such a way that it has its being only in its Continuity with an Other; it is a limit which *is* not, but *becomes*" (G. L., 261; cp. also Enc., 104).

In other words, a Quantum can only be defined in relation to another Quantum. No reason can ever be found in any Quantum (if non-quantitative considerations are eliminated) why it should have its actual Magnitude rather than some other. All Magnitudes are fixed by non-quantitative considerations. There is an *a priori* reason why a triangle has three sides, rather than two or four. There is an empirical reason why there are seven apples on this dish, rather than six or eight. But there can never be any reason why the number seven, taken simply as a number, should not be in any particular case replaced by six or eight. It has its determination in another Quantity — it stops where another begins. But it is after all continuous with this other Quantity —the Ones are just the same on each side of the Limit, and there can be no reason why the Limit should not be put elsewhere, and so add to the Quantum or diminish it. And so we come to

(*c*) *The Alteration of Quantum.*

Why, it may be asked, did not this conception of the necessary variation of Quantity come before? Surely it is as true of an Extensive Quantum as of an Intensive Quantum that no reason can be found in the nature of the Quantum itself why it should not be larger or smaller.

I think it is true that, if we had stopped at Extensive Quantum, without going on to Intensive, this conception of Alteration would have necessarily followed from Extensive Quantum. But the more immediately obvious transition—and therefore the one to take first—was the transition to Intensive Quantum. And, if Intensive Quantum was to come in at all, the transition to Alteration of Quantum comes better after it, for the necessity of that transition then becomes far more obvious. As was said in the passage quoted above, it was developed in Extensive Magnitude, but finds its determinate being in Intensive Magnitude.

When we regard a Quantum as Extensive, we regard the plurality of Ones as the element which is logically prior, and the Quantum as a whole is regarded as dependent on

the Ones. Now so long as we refer the Quantum to the Ones, there *is* a reason for the Quantum being the size it is, and no other—namely that it includes those Ones, and no others. If we go farther, and ask why those Ones and no others should be included, no answer could be given, and the conception of Alteration would arise, but so long as we regard the Ones as ultimate in reference to the Quantum, the necessity of Alteration remains in the background.

But with Intensive Quantum it comes at once to the front. For there the unity of the Quantum is the prominent element. It is conceived as logically prior to the Ones. And therefore our question—why is it this Quantum, and not a larger or smaller one—cannot be referred back to the Ones which it contains. And therefore the necessity of Alteration, which is due to the impossibility of answering this question, follows more obviously and naturally from Intensive Quantum.

This is what Hegel means when he says (G. L., 253) that determination of a Quantum through Number (which is a category previous to Intensive Quantum) does not need another Magnitude, because in Number Quantum has its externality, and its relation to another, inside itself. (If this passage seems to deny *all* tendency to Alteration or the fact of an Extensive Quantum, we must remember the explicit assertion on page 261 that the difference in this respect between Extensive and Intensive is merely a matter of degree.) And again (G. L., 254) "Degree, therefore, which is simple and in itself, and so has its external Otherbeing no longer in itself, has that Otherbeing outside itself, and relates itself to it as to its determination".

We have now come to the end of Extensive and Intensive Quantum, and pass on to the third subdivision of Quantum, which is called

C.—The Quantitative Infinity.

(*a*) *Its Notion.*

The first subdivision of Quantitative Infinity is, as usual, the restatement of the last subdivision of the preceding triad. The first movement of the Quantum when it passes its Limit is into a Quantity which is simply defined as not being that Quantum. So far, then, it is only Quantity, and no longer Quantum. And as Quantity is only bounded when it is Quantum, this Quantity has no boundaries at all. Thus it is infinite (G. L., 263).

Hegel now proceeds to remark on the difference between the Qualitative Infinity, which was one of the triads in

Being Determinate, and the Quantitative Infinity, with which we are now dealing (G. L., 264). That which is Qualitatively determined is not *posited* as having the other in itself. Magnitudes, on the other hand, are posited as being essentially Alterable, as being, in Hegel's somewhat peculiar language, "unequal to themselves and indifferent to themselves".

The difference is one which always arises between lower and higher categories in Hegel's philosophy. The method of the dialectic changes gradually as the dialectic process advances (cp. Enc., 240; 111, lecture note; 161, lecture note). It becomes more of a spontaneous advance from category to category, and less of a breaking down, by negative methods, of the resistance of categories which oppose any movement beyond them. It is thus to be expected, since Quantity comes later than Quality in the process, that the finite in Quantity should lead on to the infinite more expressly and directly than the finite in Quality does.

From this category the transition to the Infinite Progress takes place in a manner analogous to that which we noticed when we dealt with the Qualitative Infinite (MIND, 1902, p. 517). The Quantum is after all continuous with the indefinite Quantity into which it has passed over. If it were not, it would not have passed over into it. The passage has only taken place because both terms are Quantities, only separated by a Limit to which it is the nature of Quantity to be indifferent. But the Quantity on the other side of the Limit will also be composed of Ones, and thus the argument is again applicable which originally transformed Quantity into Quantum. The Other Side (*Jenseits*) of the original Quantum is now itself a Quantum. And therefore it, like the original Quantum, is essentially subject to alteration, and will pass the Limit, only thereby to reach a third Quantum, which will be surpassed in its turn, and so on (G. L., 265). Thus we come to

(*b*) *The Quantitative Infinite Progress.*

At this point Hegel inserts an interesting note on the supposed sublimity of the sort of Infinite which is revealed in such a progress as this. Such an Infinite, he says, can produce nothing but weariness (G. L., 268; Enc., 104, lecture note). This is extremely characteristic of Hegel. When he says that the true Infinite is not the unbounded, but the self-determined, he does not merely change the meaning of a word, but claims for the self-determined all

the dignity which is more commonly attributed to the unbounded. It is, perhaps, to his deep conviction that true greatness lies in self-limitation, and not in the absence of limitation, that we are to ascribe much of the special reverence which he shows for the ideas of the Greeks, as well as his contempt for the Romanticism of his own age and country.

At the same time we must not forget that Hegel never says that the False Infinite of an Infinite Series is necessarily contradictory, though he does say it is worthless and tedious. (Cp. MIND, 1902, p. 518: "The contradiction only arises when, on the one hand, it is asserted that something is explicable or determinable, and when, on the other hand, the attempt to explain or determine it leads to an infinite series. For we cannot tell that the series will be infinite, unless we know that *no* term in the series can give the required explanation or determination. And, if no term can give it, and the explanation or determination can only be looked for in the series, then it will not be found at all, which contradicts the original assertion that it can be found.

"In opposition to this, it may perhaps be said that, though no term can give the required explanation or determination, the whole series may. But if the series is a mere aggregate of its terms, it can give nothing that is not given by one of them. And if the series is something more than the mere aggregate of its terms, then the solution is found in its unity, and not in the infinite series at all.")

Now it *is* an attempt to determine something which leads, in the case before us, to the Infinite Series. The dialectic process had reached the idea of a Quantum, which, among other characteristics, had to be definite. But it could only be definite by having a Limit, and keeping within it. We have seen, however, that any Quantum necessarily passes its Limit, and overflows into a fresh Quantum. But it is of the essence of Quantum to be determined, and the dialectic process will not permit us to reject the idea of Quantum altogether. In this case, therefore, a contradiction arises.

How is the contradiction to be avoided? In a very similar way to that in which the same difficulty was met in the case of Qualitative Infinity. That which is outside any Quantum is another Quantum. If we try to find the determination of any Quantum in itself exclusively, then we find that its Limit continually alters, and that the task is endless. But, if we fully accept the relation of each Quantum to the other which is outside it, the case is changed. No Quantum can determine itself as against another Quantum. But two

Quanta can reciprocally determine one another. There is no reason why 7 should not become 6, or why 17 should not become 16, if we take 7 and 17 as two isolated facts, each of which must be determined by itself, or not at all. But if we take these Quanta as related to one another, then there is a reason why 7 should not become 6—for it would then bear a different relation to 17, and there is a reason why 17 should not become 16—for it would then bear a different relation to 7. Thus the Quanta have now some real self-determination, though it is slight; *a* cannot become greater or less, because it would thereby change its relation to *b*. And its relation to *b* is what it is, not only because *b* is *b*, but because *a* is *a*. With this partial self-determination we reach (G. L., 279; Enc., 105, lecture note)

(*c*) *The Infinity of Quantum,*

by which is meant the true Infinity of self-determination, as opposed to the False Infinity of an unending progress.

It will be noticed that there is a difference between the Quantitative Infinite Progress and the earlier Qualitative Infinite Progress. In Quality (cp. MIND, 1902, p. 517) the Something finds its nature only in another Something, which in turn finds its nature in a third, and so on. The Somethings themselves do not change, but fresh ones are continually reached, in the vain search for a final determination. In Quantity, however, the Infinite Progress is not one of an Infinity of Quanta, but of a single Quantum, which endlessly increases in size, as it successively overleaps every Limit.

This difference is inevitable. In Quality there can be no change of anything. The nature of reality is not yet sufficiently complex to allow anything to become different in one respect while remaining the same in others. If a thing is not completely the same it has utterly vanished (cp. MIND, 1902, p. 508). It is impossible, therefore, for a Something to change, and the Infinite Progress can only proceed by adding fresh Somethings.

In Quantity the position is altered. Change is now possible, and so the original Quantum can change. On the other hand, the indifference of the Quantum to its Limit (the first correction of which only arises as we pass out of the Quantitative Infinite Progress) renders it impossible to pass from one Quantum to another.

This difference of the Antitheses in the two triads accounts for the difference in the Syntheses, though the general thought in both Syntheses is the same.

With this stage of the dialectic the idea of Quality returns (G. L., 281 ; Enc., 105). This is most clearly stated in the Encyclopædia: "That the Quantum in its independent character is external to itself is what constitutes its quality. In that externality it is itself and referred connectively to itself. There is a union in it of externality, *i.e.*, the quantitative, and of independency (Being-for-self)—the qualitative". The essential characteristic of Quantity was that it could alter and yet remain the same. Now this characteristic begins to disappear. The Quantum can no longer alter without the least effect on anything but its own Magnitude. For it is now in relation to some other Quantum, and it cannot alter unless either that other Quantum, or the relation, alters simultaneously. This is the first step (though as yet but a very small one) towards bringing back, on a higher level, the fixity of Quality. With it we pass out of Quantum, to the third and last division of our subject, after some mathematical digressions occupying nearly 100 pages,

III.—THE QUANTITATIVE RATIO.

The Ratio between two Quanta is, as Hegel points out, itself a Quantum (G. L., 380). And he now transfers his attention from the related Quanta to the Quantum which forms their relation, and is known as the Exponent. If he can transcend the essential defect of Quantity in this case, he will have found a universal solution, since it is obvious that any Quantum can be expressed as the Ratio between two other Quanta.

The first and simplest form of Ratio is called

A.—The Direct Ratio

(G. L., 381), which is a restatement of the last subdivision of Quantitative Infinity. The related Quanta are here taken as logically prior, and the Quantum which is their Ratio as logically subsequent. Thus we get, for example, that the Ratio of 7 to 35 is 5.

Hegel points out three characteristics of this Ratio. The first is that the Quantum which is the Ratio is no more determined by the two Quanta of which it is the Ratio than it is by an infinite number of pairs of other Quanta. For example, 5 is equally the Ratio of 6 and 30, of 8 and 40, and so on (G. L., 382).

The second characteristic follows from the first. The related Quanta cease, so far as they are taken simply in

this relation, to be perfect Quanta. For it does not matter how much they alter absolutely, provided they do not alter relatively. So long as one remains five times the other, they may both increase or decrease indefinitely. And the alteration of each is no longer perfectly free, but is conditional on an alteration of the other. If 7 increases to 9, then 35 must increase to 45 (G. L., 382, 383).

The third characteristic is that the whole meaning of the pair of related Quanta, taken as related, is summed up in the Exponent. And therefore Hegel finds it a defect in this category that the Exponent is not sufficiently marked out from the other Quanta. It cannot be the largest of the three Quanta concerned, but it can be either of the others. We have said that 7 and 35 stand to each other in a Ratio expressed by 5. But we might just as well have said that 5 and 35 stand to each other in a Ratio expressed by 7 (G. L., 383). Since—this appears to be Hegel's argument—the Exponent is specifically different from the related Quanta, it must be clearly distinguishable from them. But in Direct Ratio this is not the case. We must therefore seek another Ratio, where the Exponent is marked out by the nature of the relation. Now, if you have three integral numbers (and Hegel appears to assume that all his Ratios will be between Quanta expressed by integral numbers), there is a relation between them which has the required definiteness. If one of them is the product of the other two, then it is the largest of the three that will be the product. So we come to

B.—The Inverse Ratio

(G. L., 384), where the Exponent is the product of the two related Quanta. It appears to be called Inverse because the increase of one of the related Quanta involves the diminution of the other.

The transition to the next category is extremely obscure. So far as I can understand it, it is as follows (G. L., 389). Either of the two related Quanta can increase, so long as the other diminishes, the only Limit of this process being that neither of the related Quanta can become larger than the Exponent. Thus either of the related Quanta is implicitly (*an sich*) the Exponent. Hegel calls this "the negation of the externality of the Exponent". This means, if I am correct, that there are no longer necessarily *three* Quanta, but only two, namely the Exponent, connected with one other Quantum, no longer by a third Quantum, but by some non-quantitative relation. And thus, says Hegel, without any further explanation, we reach

C.—The Ratio of Powers.

By this he appears to mean only the special relation which exists between two numbers, one of which is the square of the others (G. L., 390). It is the square, as the result of the process, which is treated as the Exponent.

The transition appears very questionable. It may be admitted that the indefinite approximation of one of the related Quanta to the Exponent brings a Qualitative element into greater prominence, and that the Ratio of Powers has also a relatively prominent Qualitative element. But in other respects they are quite different conceptions. And Hegel gives us no reason for passing at this point from one partially-qualitative relation to another and distinct partially-qualitative relation. He is satisfied with showing that they are both partially-qualitative, which is clearly not sufficient.

It is difficult to see, too, why Hegel thought himself justified in considering only those cases where one Quantum was the square of the other, and in excluding cubes and other powers. If, however, he *had* considered these other powers, it would have become evident that the relation between the two Quanta was not yet one which could dispense with a third Quantum. For the question of the power to which one was to be raised to equal the other could only be answered by naming a third Quantum.

Hegel makes the transition to the next category as follows: "Quantity as such appears as opposed to Quality; but Quantity is itself *a* Quality, a determination in general which relates itself to itself, separated from the determination which is other than it, from Quality as such. Yet it is not only *a* Quality, but the truth of Quality itself is Quantity; Quality has shown itself as going over into Quantity; Quantity, on the other hand, is in its truth that externality which is turned back on itself, which is not indifferent. So it is Quality itself, in such a way that outside this determination Quality as such is no longer anything" (G. L., 392). He goes on to say that this union of Quantity and Quality gives us Measure, which carries us beyond our present subject into the third and last subdivision of the Doctrine of Being.

We have now reached the end of Hegel's treatment of Quantitative Ratio. Can it be regarded as valid? I do not think that it can. Something might perhaps be said against the validity of the transition from Direct to Inverse Ratio. Certainly a good deal might be said, as I suggested above, against the transition from Inverse Ratio to the Ratio of Powers. But it is not necessary to go into these difficulties,

for there is a much more general objection. The whole triad of Quantitative Ratio is a blind alley. It does not lead, as it professes to lead, to the category of Measure, and the chain of the dialectic cannot be continued through it.

The passage I have quoted above contains the transition from Quantity to Measure. We therefore have before us the manner in which the inadequacies of Quantity are to be transcended, and in which Quality is to be recovered and synthesised with Quantity in Measure. It seems to me that neither of these objects has been really attained.

As to the first. The special characteristic of Quantity was its indifference. It was originally stated to be that which could alter, and yet remain the same. When we reached Quantitative Infinity, we found that it not only could alter, but must alter, and it was to remedy the contradictions thus caused that we were forced to have recourse to Quantitative Ratio.

Does Quantitative Ratio remove this indifference, even when taken in its highest form, the Ratio of Powers? Let us pass over the difficulty that the power to which a number is to be raised can only be expressed as an immediate Quantum, which might be any other. Let us confine ourselves, as Hegel does, to squares, and ignore the quantitative nature of the index. Has this removed the indifference? If we take 49 as a simple Quantum, it is under the necessity of changing continually. If we take it as the square of 7, has the necessity disappeared?

Surely it has not. It is true that 49 cannot now change unless the 7 changes with it. But 7 is also a Quantum, and so there can be no reason why it should not change, nor, therefore, why 49 should not change. Again, the first numbers it can change to are no longer 48 and 50, but 36 and 64. But its number of changes is still unlimited, since any number may have a square. There is no end to the various numbers which can be substituted for 7, and, therefore, no end to the various numbers which can be substituted for 49. The movement of the 49 has now a few restrictions put upon it, but not sufficient to save it from the possibility and necessity of continuing in an infinite series. And therefore Quantitative Ratio has not removed the contradictions of Quantitative Infinity, nor has it enabled us to transcend the characteristic nature of Quantity. It is true that 7 and 49 are linked Quanta, but they are still Quanta.

With this is very closely connected the second defect of the triad. It professes to lead us to Measure, and it must therefore bring back Quality. In the passage quoted above

(G. L., 392) Hegel says that it has done this. We may admit the first part of what he says. Since the conception of related Quanta was first introduced in the category of Infinity of Quantum, there has been a slight Qualitative element in the nature of Quantity. For the movements of each separate Quantum are no longer completely arbitrary and unconditioned, and every restriction on the movement means some departure from the typical idea of Quantity. But this is not enough. In the Ratio of Powers we have the transition to Measure. In it, therefore, Quality ought to be completely restored, since Measure is the Synthesis of Quality and Quantity. It ought to be present as something which is indeed united with Quantity in the Synthesis, but which is no more dependent on, or a variety of Quantity, than Quantity is a variety of it. This has not happened. We have got a Quantity, which is more like a Quality than before, but which is still essentially a Quantity, and not a Quality. The test of this is the indifference, and the Infinite Progress which the indifference gives rise to. Till we have got rid of this, we have not transcended Quantity. For the indifference is, as we have seen, the special characteristic of Quantity, and it is also the source of the contradictions inherent in Quantity, for the removal of which the transition to Measure becomes necessary. But, as I pointed out above, the Ratio of Powers does not get rid of the indifference or of the Infinite Progress. For it can only account for the size of one Quantity by its relation to another. And if we ask why the other is no larger or smaller, we can only be referred to a relation which it had with some other Quantum, and so on continually. Our conclusion must be that the Ratio of Powers has not transcended Quantity, and is not, therefore, a valid transition to Measure.

What then is to be done? We saw reason to think that the transition from Quantum to Quantitative Ratio is valid, and I believe that it is possible to recast the triad of Quantitative Ratio in such a way as to make a valid transition to Measure. The Thesis of my proposed triad would be the restatement of the general idea of Quantitative Ratio, as it had been arrived at in the previous category of Infinity of Quantum. It might be called *Quantitative Ratio as such*, or again *Quantitative Ratio in general* (*überhaupt*), either of which would be in accordance with Hegel's terminology.

The inadequacy of the Thesis would lie in the fact, which we have already mentioned, that, if one Quantum is determined by its Ratio to another, the question inevitably arises how that other is to be determined. We are thus led into an

infinite series. This conception forms the Antithesis of our triad, and might be called *The Infinite Series of Ratios*.

It will be noticed that this Infinite Series resembles the Infinite Progress found in Quality more than it resembles the Infinite Progress in Quantum. For the Ratios do not continually alter, as the Quanta did. The Infinity comes in through the necessity of going on to fresh Ratios to determine those already existing. This approximation to the Qualitative type of infinity is very natural, since, with Ratio, Quantity has begun to approximate to Quality.

Here, as in the two previous cases, the Infinite Series involves a contradiction. The original Quantum is determined. But it can only be determined by its relation to the next, and so cannot be determined unless that one is determined also. But this depends in like manner on the next again, and so on. Therefore the Original Quanta cannot be determined until an infinite series is completed. That is, it can never be determined, which contradicts the previous assertion that it is determined.

We must pass on, then, to a fresh category, which will remove this contradiction, and will form the Synthesis of Quantitative Ratio. We have seen that Quantity, however developed, can never, while it remains only Quantity, get rid of the inadequacy which has now shown itself once more in the Infinite Series of Ratios. Now the ground of this inadequacy was the necessary indifference of all Quanta. And this indifference, we saw, proceeded from the fact that all Ones were exactly alike, so that there could be no reason assigned why a Quantum should stop at any particular Limit, rather than any other.

The only way of escaping from our difficulty, therefore, will be to reject the exact similarity of the Ones. At the same time, we must not reject all that has been gained since Being Determinate was left behind. For, if we did replace ourselves in the position of Being Determinate, then all the categories would again be developed from it till Quantitative Ratio was reached, when we should have again to return to Being Determinate, and so on in an endless round.

It is necessary, then, to keep Quantity in some form, and yet to restore Qualitative differences. Now this can be done, if at certain points in a series of units there is a Qualitative change, so that the Ones on one side of each of these points are Qualitatively different from those on the other side of that point. In this way we shall still have Quanta, because we shall have, within certain limits, aggregates of Ones which are of precisely similar nature. And since, at

these limits, there is a Qualitative change, there is now a reason why the Quantum should remain within its Limit, and not increase beyond it. For it is a Quantum of Bs, and, if it went beyond the Limit, it would find no more Bs but only Cs.

We have thus reached a solution of the inadequacy of Quantitative Ratio, and also of the inadequacy of Quantity generally. The conception which has achieved this is identical with the category to which Hegel gives the name of Measure. The third member, therefore, of the triad of Quantitative Ratio may, in accordance with Hegel's terminology, be called *The Transition to Measure*. And with this we pass from Quantity to Measure—the third and last subdivision of the Doctrine of Being.

The course of the argument in the Encyclopædia is practically the same as in the Greater Logic, except in the relative importance given to different categories. In the Greater Logic, as we have seen, Extensive and Intensive Magnitudes, and the Infinite Progress, all fall within the second subdivision, while the third subdivision is completely taken up by Ratio. In the Encyclopædia, the second subdivision (named, as in the Greater Logic, Quantum) deals with Extensive Magnitude only. The third subdivision is called Degree, and contains Intensive Magnitude, the Infinite Progress, and Ratio. This arrangement shows more clearly the advance made in passing from Extensive to Intensive Magnitude, but otherwise it seems inferior to the order of the Greater Logic. For Intensive Magnitude seems more closely connected with Extensive Magnitude than it is with Ratio. And, again, the Infinite Progress makes manifest the characteristic contradiction inherent in all Quantity. It would seem, therefore, more appropriately placed in the second subdivision, which is the Antithesis of the triad of Quantity, than in the third, which is the Synthesis.

III.—MEINONG'S THEORY OF COMPLEXES AND ASSUMPTIONS (I.).[1]

By B. Russell.

That every presentation and every belief must have an object other than itself and, except in certain cases where mental existents happen to be concerned, extra-mental; that what is commonly called perception has as its object an existential proposition, into which enters as a constituent that whose existence is concerned, and not the idea of this existent; that truth and falsehood apply not to beliefs, but to their objects; and that the object of a thought, even when this object does not exist, has a Being which is in no way dependent upon its being an object of thought: all these are theses which, though generally rejected, can nevertheless be supported by arguments which deserve at least a refutation.[2] Except Frege, I know of no writer on the theory of knowledge who comes as near to this position as Meinong. In what follows, I shall have the double purpose of expounding his opinions and of advocating my own; the points of agreement are so numerous and important that the two aims can be easily combined.

The theory of knowledge is often regarded as identical with logic. This view results from confounding psychical states with their objects; for, when it is admitted that the proposition known is not identical with the knowledge of it, it becomes plain that the question as to the nature of propositions is distinct from all questions as to knowledge. And

[1] The works concerned are: "Ueber Gegenstände höherer Ordnung und deren Verhältniss zur inneren Wahrnehmung," *Zeitschrift für Psychologie und Physiologie der Sinnesorgane*, vol. xxi., pp. 182-272 (1899); *Ueber Annahmen*, Leipzig, 1902, pp. xv, 298. There is an important article in the above periodical, "Abstrahiren und Vergleichen," vol. xxiv., pp. 34-82 (1900), which, since its theme is not very closely connected with that of the above two works, I shall not deal with, although its contents appear to me almost wholly true, and deserving of careful attention.

[2] I have been led to accept these theses by Mr. G. E. Moore, to whom, throughout the following pages, I am deeply indebted.

ne refusal to recognise this distinction appears to have, apart from metaphysical consequences, two bad effects: it introduces irrelevant psychological considerations into logic, and at the same time excludes relevant psychological considerations from the theory of knowledge. It does the former, because knowledge cannot be other than psychical; and it does the latter because the distinction between logic and psychology is strongly felt, and is therefore constantly stated as a distinction between theory of knowledge and psychology. The theory of knowledge is in fact distinct from psychology, but is more complex: for it involves not only what psychology has to say about belief, but also the distinction of truth and falsehood, since knowledge is only belief in what is true. Thus the subject may be approached either through psychology or through logic, both of which are simpler than it is. Meinong has approached it through psychology, but with great logical acumen; it may be interesting, therefore, to confront his views with views which are suggested by the approach through logic.

Before entering upon details, I wish to emphasise the admirable method of Meinong's researches, which, in a brief epitome, it is quite impossible to preserve. Although empiricism as a philosophy does not appear to be tenable, there is an empirical manner of investigating, which should be applied in every subject-matter. This is possessed in a very perfect form by the works we are considering. A frank recognition of the data, as inspection reveals them, precedes all theorising; when a theory is propounded, the greatest skill is shown in the selection of facts favourable or unfavourable, and in eliciting all relevant consequences of the facts adduced. There is thus a rare combination of acute inference with capacity for observation. The method of philosophy is not fundamentally unlike that of other sciences: the differences seem to be only in degree. The data are fewer, but are harder to apprehend; and the inferences required are probably more difficult than in any other subject except mathematics. But the important point is that, in philosophy as elsewhere, there are self-evident truths from which we must start, and that these are discoverable by the process of inspection or observation, although the material to be observed is not, for the most part, composed of existent things. Whatever may ultimately prove to be the value of Meinong's particular contentions, the value of his method is undoubtedly very great; and on this account, if on no other, he deserves careful study.

The following is a brief outline of Meinong's main theses.

In all presentation and judgment, it is essential to distinguish the content from the object. The object, when it is what he calls an "object of higher order," is complex. The article on this subject investigates the nature of complexity in objects, and contends that complex objects are perceptible. The book on assumptions (*Annahmen*), which is at first sight on a different theme, is really closely connected with this article. It points out that judgment contains two elements, (1) conviction, (2) affirmation or denial, and that, in a large class of common facts, which are called *assumptions*, the second occurs without the first.[1] Both judgments and assumptions have reference to what Meinong calls Objectives, which are the propositions concerned: a judgment and an assumption differ, not in respect of the Objective, but in respect of the conviction which is present in the one but not in the other. It now appears that these Objectives always enter into the composition of complexes, even if they are not always identical with them.[2] But it is contended that complexes cannot be objects of presentation, since they require always an assumption, which is something radically different from presentation. Thus we have (1) simples, which can be presented; (2) complexes, which can be either assumed or judged, but not presented. The point of most importance for logic is, in my opinion, the connexion of complexes and propositions; for theory of knowledge, the objectivity of propositions, and the existence and functions of assumption as opposed to judgment.

I.

The phrase "objects of higher order" is used by Meinong to cover relations and what he calls *complexions*, or what, in English, it would probably be better to call *complexes*. To establish the perceptibility of such objects is the main purpose of the article which he devotes to them; but incidentally many other points of great importance receive an illuminating discussion.

[1] This had been already pointed out by Frege, but had by him only been applied over a very small part of the field covered by Meinong's investigations, and had, moreover, not been established with anything approaching the same wealth of argument and illustration. For references, see below.

[2] The identity of propositions and complexes was maintained by Mr. G. E. Moore in his article on "The Nature of Judgment," MIND, N. S., No. 30, as was also the theory that truth and falsehood attach not to the judgment, but to the proposition, by which is meant the same as Meinong's Objective.

In psychical matters, at any rate in the case of presentations and judgments, it is necessary, Meinong points out, to distinguish three elements, the act, the content, and the object. All presentations have in common the act of presentation, but the presentations of different objects differ in respect of their contents. It is necessary sharply to distinguish content and object: the content of a presentation exists when the presentation exists, but the object need not exist —it may be self-contradictory, it may be something which happens not to be a fact, such as a golden mountain, it may be essentially incapable of existence, as for instance equality, it may be physical, not psychical, or it may be something which did exist or will exist, but does not exist at present. What is called the existence of an object in presentation is really not existence at all: it may be called pseudo-existence. But though it is essential to distinguish content and object, the content tends to be ignored in favour of the object; there are no natural designations for contents, which have to be named and distinguished by their objects.

Among objects, there are some that have an intrinsic lack of independence; thus diversity, for example, can only be thought of in relation to differing terms. Such objects are based on others as indispensable presuppositions: Meinong calls them "objects of higher order," and the presupposed objects he calls *inferiora*, in respect to which they (the objects of higher order) are *superiora*. An object which can have an *inferius* must have one; but an object which can have a *superius* need not have one (p. 190). Not all objects of higher order are relations: four nuts, *e.g.*, are such, for they presuppose each of the nuts. A melody, again, is such; and so is a red square, being compounded of a shape and a colour (pp. 184-192).

The above instances make it fairly plain what class of objects Meinong has in view: they are relations, the complexes formed of terms related by a relation, and the kind of objects (which we may call plurals) of which numbers other than 0 and 1 can be asserted. But before proceeding to new points, we must examine the description which he gives of such objects. They have, he says (p. 189), an internal lack of independence in their nature; they are built on other objects as indispensable presuppositions (p. 190). Omitting plurals, for reasons which will be mentioned shortly, there are certain difficulties about this description.

In the first place, it is based upon logical priority: the *inferiora* are in some way prior to their *superius*. Now logical priority is a very obscure notion; and so far as can

be seen at present, it is one which a careful discussion tends to destroy. For it depends upon the assumption that one true proposition may be implied by another true proposition, and not the other by the one; whereas, according to symbolic logic, there is a mutual implication of any two true propositions. The appearance of one-sided implication in such cases arises, it would seem, from an unconscious substitution of formal for material implication.[1] Thus it would result that the subsistence or being of a whole cannot presuppose that of its parts in any sense in which that of the parts does not presuppose that of the whole.[2]

Connected with this point is a second, namely, that it seems impossible to distinguish, among true propositions, some which are necessary from others which are mere facts. Thus the statement that a *superius must* have an *inferius*, while the converse is not necessary, must be questioned: any two terms have some relations, and the relations they do have are as necessary to them as they (the terms) are to the relations. Throughout Meinong's work, in many crucial points, use is made of the notion of necessity; and some of his most important arguments fail if necessity is not admitted. The difference of green and yellow, he says, is necessary; but not so the fact that the sun is shining now (*Annahmen*, p. 188). But he adds in a footnote that this too, if considered in relation to its causes, may appear necessary, which seems to make the psychical process leading to a belief relevant in judging of necessity; and this, he admits, introduces a problem. Now when we consider what propositions we commonly call necessary, we find that they are: (1) all such as do not involve any particular parts of

[1] See *The Principles of Mathematics*, vol. i. (Cambridge, 1903), by the present author, chap. iii.

[2] It must be admitted, however, that one-sided inferences can practically be made in many cases, and that consequently some relation or relations other than that considered by symbolic logic must be involved when we infer. One such relation is that with which Meinong is concerned, the relation of the simple to the complex: the simple is prior to the complex in the sense that *we* can infer it from the complex, whereas the converse inference, even when it is valid, can only be seen to be valid, as a rule, if the conclusion is already known to be true. In this sense, logical priority may be derived from relative simplicity; but when this is done, we cannot, of course, use logical priority in defining the relation of simple to complex. When logical priority is spoken of in what follows, it will be always in this derivative sense, in which the components of a complex are prior to the complex itself. But this sense, though relevant in the theory of knowledge, appears to be inapplicable in logic: it would be better to call it epistemological priority, since it has an essential reference to our inferring.

time—*i.e.*, if they involve time at all, they involve all time; (2) all such as are seen to follow from true premisses, whether these are regarded as necessary or not. It is under the second head that an event becomes necessary when deduced from causes, for these, unless also so deduced, are not regarded as necessary. I cannot help suspecting that the whole feeling of necessity and contingency has been derived from the fact that a sentence containing a verb in the present tense—or indeed in the past or the future, unless with mention of a particular time—changes its meaning continually as the present changes, and thus stands for different propositions at different times, and as a rule sometimes for true ones, sometimes for false ones. And generally, when a proposition contains a term which we instinctively regard as variable, we feel that the proposition is contingent if some values of the variable make the proposition true, others false. For instance, when we say "the number of this cab has four figures," we feel that it might have had five, because we think of all the other cabs we might have taken. But when this often unconscious thought of the variable is excluded, I cannot see that temporal facts differ from others in any way that could be called contingency.[1]

A third objection is that relations, though not complexes, appear to be capable of being thought of apart from terms. If the impossibility is meant only in a psychological sense, it is probably true that most people find a difficulty in so thinking, though even then it is not any particular terms, but only the notion of some terms that is required. But it would seem that diversity, for example, or logical implication, is a simple notion, into whose composition the notion of terms does not enter; and that to learn to think of such a notion in itself is a feat which can be accomplished by practice. It may indeed be doubted whether relations can be adequately characterised by anything except the fact that they relate, or complexes by anything except the fact that they contain terms related. So far as any characterisation of complexes is possible, it is derived, in my opinion, from a certain kind of unity which Meinong himself has described later.

With regard to plurals, which are supposed by our author to have some unity making them more than a mere collection, it is impossible to speak without entering upon the whole question of classes and numbers, a question of the utmost difficulty, which I have discussed at length elsewhere.[2]

[1] On "Necessity," see Mr. G. E. Moore's article in MIND, N. S., No. 35.

[2] *Op. cit.*, especially chaps. vi., xv.

Plurals, in any case, differ widely from relations and complexes, and involve a different kind of logical problems. It will be well, therefore, in what follows, to exclude them from our discussions.

Returning now to the exposition of Meinong's doctrine, we find a careful attempt to characterise the unity of a complex. A complex implies a relation, and *vice versa;* it is more than the collection of its constituents, in virtue of the combining relation. Although the relation is part of the complex, the complex is not composed of the terms and the relation, for the terms are related to the relation in consequence of being related by it—a fact which leads to an endless regress, but of a harmless kind (pp. 193-194). A melody of four notes is not a fifth note, and generally a complex is not formed by adding an object to the constituents; nevertheless, something is added. What is added is the relation, but rightly related to the constituents: for red, green, and difference do not make "red differs from green" (p. 236).

All these remarks appear to be perfectly just, as is the remark (p. 196) that a relation or complex may have more than two terms. But the unity of a complex raises a logical problem, of which Meinong seems to be not fully aware. What is added, we are told, is the relation, rightly related; but when we consider the relation as well as the terms, we do not obtain the complex. And if we add the relations of the relation to the terms, and all the relations generated in the resulting endless process, we still do not obtain again our original unity, but only an aggregate. Thus what distinguishes our complex is not any constituent at all, but simply and solely the fact of relatedness in a certain way. Out of given constituents, even when account is taken of all the infinitude of relating relations, different complexes can be constructed: thus, *e.g.*, "*a* is greater than *b*" and "*b* is greater than *a*" differ in no respect which analysis can preserve. It is this special and apparently indefinable kind of unity which I should propose to employ in characterising the notion of a complex. The kind of unity in question belongs, as is evident, to all propositions; and the inadequacy of analysis appears, in this case, in the fact that propositions are true or false, while their constituents, in general, are neither.

Ideal objects, Meinong says, *i.e.*, such as are incapable of existence, are always objects of higher order. Similarity, *e.g.*, does not exist, but subsists (*besteht*); similarly quadruplicity does not exist where there are four nuts. But

there are also real complexes and real relations: such are the occupation of time and place, the relation of desire to its object, and the relations of parts in the unity of consciousness (pp. 198-199). Real relations are not necessary, but ideal ones are: the latter he calls well-founded (*fundirt*), and objects of this sort he calls well-founded objects (p. 202).

To the last statement we may object, as before, our doubt as to the notion of necessity; and on the preceding contentions, while fully admitting the general distinction of existence and subsistence, some criticisms seem called for. If only what does exist, has existed, or will exist, is capable of existence, as we must hold if we reject the traditional distinctions of modality, then there certainly are ideal objects which are not of higher order. Such are the points of a non-Euclidean space, or the imaginary particles of rational dynamics. If, on the other hand, to be a possible existent is held to mean no more than to have such a resemblance to actual existents as belong to these points and particles, then there is danger of Meinong's contention becoming a mere tautology. Thus it may be questioned whether, in any significant sense, all ideal objects are objects of higher order. The converse, however, seems capable of being maintained in spite of the instances adduced. We tend to ascribe existence to whatever is intimately related to particular parts of space and time; but for my part, inspection would seem to lead to the conclusion that, except space and time themselves, only those objects exist which have to particular parts of space and time the special relation of *occupying* them. On a question of this kind argument seems scarcely possible; and I can only record the fact that my inspection does not yield the same results as Meinong's. It is possible to suspect, however, that he has been led to his opinion by the fact that some objects of higher order can be perceived, and that he holds as self-evident the doctrine that what does not exist is not perceptible (p. 200)—a doctrine to which I shall return presently.

We come now to a careful and interesting refutation of the opinion of Schumann, according to whom internal perception reveals no objects of higher order. With this opinion, Meinong admits, common sense is inclined at first sight to agree: when we see red and blue, we do not seem to see their difference also. Consider, he says, the presentation of a steeple: internal perception assures us only of the "presented steeple," not of the real one. But internal perception yields not only the content, but also the (immanent) object —a fact which, since the latter has only pseudo-existence,

involves a fundamental problem in the theory of knowledge (p. 207). Indeed the seeing is less perceptible to internal perception than what is seen: it would seem that, except physical objects, internal perception reveals nothing but feelings, if even these (pp. 208-209). This result is the outcome of Schumann's line of argument when pushed to its logical conclusion. But such a result cannot stand before a more careful examination of the observable facts. It is plain that we often know, without a process of inference, and therefore by perception, that such and such is our opinion; and in this case we perceive a judgment by internal perception. That we have perceptions, which is an undeniable fact, can only be discovered by internal perception. It is to be observed that all perception, including internal perception, is not merely presentation, but also judgment, namely of the existence of the object. Again we perceive that we desire, and what we desire, and the relation of desire to its object; and of feelings the same is true. And it is plain that presentations can be perceived, for many have non-existent objects, which, being non-existent, cannot be perceived, so that the knowledge of such presentations must be derived from perception of them, not of their objects (pp. 212-218).

In order to examine the last of these arguments, of which the validity seems as doubtful as the conclusion is irrefragable, it will be necessary to examine what Meinong says as to the nature of perception itself. It is generally assumed — and Meinong appears also to assume—that perception is a kind of knowledge, whereas it may, I think, be maintained that perception is merely knowledge of a kind of truths, *i.e.*, that there is nothing distinctive, in perception, about the manner of knowing, but only about what is known. Before enlarging upon this thesis, however, I will set forth briefly what our author says upon this subject.

A thing is only perceived, we are told, when its existence is known immediately, *i.e.*, without inference from premisses, and is (at least practically) simultaneous with the knowledge. This is not quite exact; for the fixed stars which we now perceive may have long ago ceased to exist; but this inexactness applies specially to external perception. A perception is characterised as internal (1) by its object being psychical, (2) by its pre-eminent certainty and evidence (p. 212). As regards the approximate simultaneity of the content and the object of perception, this can be proved to be *only* approximate by such cases as the perception of a melody or a motion or any single complex whose constituents are

successive. The complex, in such a case, can only be perceived when all the parts have been perceived, and are still perceived: the temporally distinct *inferiora* of our complex must be given to presentation simultaneously, though not as simultaneous. When, after hearing the notes of a melody, I perceive the melody, the notes are not presented as still existing: their mutual time-relations and their relations to the time of presentation are all somehow involved, and the melody seems more or less past. It follows that a sequence in the object does not involve a corresponding sequence in the content, and that we can perceive what is past (pp. 244-255).

The above argument, which is set forth very fully, and appears quite unanswerable in regard to the perception of a temporal complex, leads to another, of rather more questionable validity, of which the conclusion is again that the past can be perceived. If we can only perceive what exists, not what did exist or will exist, it follows that we cannot perceive anything extended in time. But only what is real can be perceived, and an instant is only a limit, not anything real. Consequently it would follow that there is no perception. Not that we are to deny the existence of the point of time or space absolutely, but only of the point in isolation: the point does not exist, but subsist, yet where the point is, something may exist, only not confined to the point (pp. 259-260).

It is impossible, in this place, to argue the whole question of the nature of time; but as against Meinong, who appears to admit the existence of time, it may be enough to argue that instants are the ultimate constituents of time, and that a whole cannot exist if none of its parts exists. And if the existence of instants be admitted, the above argument fails: in order to retain anything of it, it will be necessary to assume (what is doubtless in some sense true), that we can only perceive existent things if they persist through a finite time.

Other less assailable arguments for the same conclusion follow. It is customary to speak of past and future as ideal in comparison with the actuality of the present; but we must admit the reality of past and future: the opposite course is unduly subjective, for the determination as past or future merely expresses a relation between the time of judgment and the time of the object, which is as irrelevant to the real as whether or when some one knows it. (This is a most lucid observation, by which a host of confusions are routed.) And there is no reason to limit perception to the present, for memory also is immediate, and grows more and more certain as the time elapsed grows shorter. Common

sense supposes simultaneity of perception and its object, because it assumes a causal or conditional connexion between the two. But such a connexion, if causal, makes simultaneity impossible; if conditional, unnecessary. Thus we may conclude that we can perceive what is past, though not without limit: the perceptible part may be called the "psychic present". It is thus that we perceive change and motion. The distinction between memory and perception loses its sharpness by this theory, especially as, strictly speaking, we can *only* perceive what is past; but the sharpness of the distinction appears to be fictitious (pp. 260-266).

Omitting, in the above discussion of perception, the parts in regard to which no criticism seems called for, certain points remain to be examined. The non-simultaneity of perception and object, where internal perception is concerned, need cause no difficulty; but in regard to external perception, such simultaneity seems part of what is perceived, and yet, as in the case of the fixed stars, it is sometimes very far from true, and always, according to physical science, more or less erroneous. Yet physical science depends throughout upon the trustworthiness of perception: hence, it would seem, the assumption of such trustworthiness destroys itself. It may be a sufficient escape, however, merely to deny that *present* existence is what external perception affirms, although such a denial seems to contravene the results of inspection in the interests of theory. The next point concerns the Cartesian maxim of the greater evidence of internal perceptions. Hobbes objected that "*ambulo ergo sum*" was just as good an argument as "*cogito ergo sum*"; and this view seems to be that of common sense. Indeed, as Meinong himself says (p. 210), materialism is the natural view of the plain man. But, judging from the course and tenor of his argument, he would appear to hold that this belief in physical objects is derived from *internal* perception. A presentation, with the three elements of act, content and object, is taken to be wholly psychical, and the object, like the other two, is supposed to be part of the total mental state—so at least some passages suggest. Thus the object is spoken of as "immanent," and in the case of the steeple, internal perception is said to assure us of the "presented steeple," not of the real one. Consequently the materialism of the plain man, if such a derivation be correct, must be derived from perception of what belongs properly to psychology—a process whose complication seems very far from the facts. As against this view, I should prefer to advocate what is, presumably, the distinguishing feature of a common-sense

philosophy, namely, that the object of a presentation is the actual external object itself, and not any part of the presentation at all. Thus to take the case of the steeple: we have (1) external perception, having as its object the actual steeple itself, or rather the existence of the steeple, the wholly extramental material thing; (2) purely internal perception, having as its object the existence of either the act or the content of the previous external perception; (3) the perception of the object of higher order, consisting of the perception and the existence of the steeple combined by the relation of cognition. (The objects of (1) and (2) are themselves of higher order, but that of (3) is a *superius* of which they are *inferiora*.) The reasons in favour of this common-sense view are briefly the following. As regards the external perception, if two people can perceive the same object, as the possibility of any common world requires, then the object of an external perception is not in the mind of the percipient. Consequently in this case, and therefore possibly in every case, the perception consists only of act and content, the object being an outside related entity, or rather proposition (namely the proposition that what is loosely called the object exists). As regards internal perception, it must be admitted that, in its pure form, it is exceedingly difficult: contents, as Meinong himself confesses, are "*wahrnehmungsflüchtig*". Thus when we mean to think only of what is psychical, we are almost inevitably led to think instead of the cognitive complex, consisting of the knowledge together with what is known; hence what is known (the proposition) comes to be viewed as also psychical, in spite of the highly inconvenient consequence that two people, in that case, cannot know the same proposition.[1]

I have spoken hitherto, being concerned with what is commonly called perception, only of the awareness of *propositions;* for all the cases concerned are, as Meinong says (p. 216), cases where something is known to exist, and where, consequently, the object of perception is an existential proposition. But it seems undeniable that there is also a mere awareness, in which the object is not a proposition; for unless we were aware what redness is, we could not know that redness exists. Except, however, for this *a priori* argument, it would be more natural, as the result of inspection, to deny any such awareness; when we try to think of redness, we seem only to succeed in thinking of redness as

[1] In his work *Ueber Annahmen*, Meinong, as we shall see, approaches much nearer than in the earlier work to the position which I advocate.

existing, *i.e.*, of what Meinong calls the *Annahme* "redness exists".[1] But however this may be, mere awareness, having as its object something neither true nor false, is widely different from cognition; and perception, in its usual significance, is a kind of cognition, namely cognition of existence.

Returning now to the question whether perception is to be defined by the way of knowing or by the kind of proposition known, we see that one mark at any rate is always associated with the word *perception*, and that is the absence of previous inference. This certainly is not a property of what is known, for everything that is known might theoretically have been known by inference, except possibly a few of the fundamental principles of logic, which are presupposed in all inference. But it appears also to be not a property, in any strict sense, of the knowledge: for when the object of a judgment is given, it would seem that the judgment is also given—*i.e.*, there is merely the knowledge of a given proposition, not different kinds of knowledge of it. Thus it follows that previous inference is a merely external relation of a cognition, which cannot affect its own nature. Yet, when we see Neptune and when we infer it, there is a wide difference of the two cases. This seems to be accounted for chiefly by two facts: (1) that a proposition perceived is not expressed in words, (2) that it always forms part of an infinitely complex spatio-temporal continuum, and is not, in perception, attended to in isolation. But in cases where the proposition concerned is abstract, say the principle "when q follows from p and p is true, then q is true," the fact that no possible inference can warrant our belief in this proposition, since all inference employs it, does not alter the quality of our belief in any way. Analogous propositions which *are* inferred come to be assented to in a precisely similar manner, *i.e.*, without any intrinsic difference in the feeling involved. Thus it is legitimate to suppose that, in the case of spatio-temporal propositions, the above two points may account for the felt difference.

But perception commonly implies also that what is perceived is an existential proposition concerning a time which is very nearly the present; and there is usually a more or less covert assumption that this mark is connected with that of not being inferred. That all premisses are obtained from perception in this sense, *i.e.*, that whatever can be admitted without proof is an existential proposition concerning the

[1] Meinong holds that a mere presentation does not have an object, but only acquires one through combination with an *Annahme*: *Ueber Annahmen*, p. 101. See below.

present or the immediate past, is the creed of thorough-going empiricism—a creed, however, which cannot be held by any one who has ever considered that proof itself involves logical principles which cannot in turn be proved. This one instance (of logical principles) suffices to show that self-evident propositions need not be derived from perception in this narrow sense; and when the possibility is admitted, it becomes easy to see that immense numbers of non-existential unproved propositions are self-evident.

It follows, if what has been said is true, that there is no validity in Meinong's argument (p. 218) that presentations must be perceptible because we know of such as have non-existent objects, and the non-existent cannot be perceived. We must hold that the Being, or, as Meinong says, the subsistence, of the non-existent is often immediately known; and many other propositions are known concerning the non-existent otherwise than by inference. The process suggested by Meinong's argument is, in any case, exceedingly and curiously complicated. First we think of a golden mountain, then we perceive that we are thinking of it; thence we infer that there is a presentation of a golden mountain, and thence finally that the golden mountain subsists or has Being. But when we originally thought of the golden mountain, we already perceived, or at least could perceive if we chose, that the golden mountain subsists; and the round-about road *viâ* our presentation seems quite superfluous. The doctrine that the object forms no part of the presentation must be extended to the case where the object is what we call imaginary, *i.e.*, does not exist; and in the case of mathematical objects, such as numbers, this seems plain enough. And it is thus that the theory of knowledge becomes subsequent to logic and to the objects of knowledge in general: for, in Meinong's phrase, the objects of knowledge (propositions) are the *inferiora* for which and the cognition the cognitive relation is the *superius*. The theory of belief, in which no distinction is made between correct and erroneous belief, is a branch of psychology which is on a par with the study of the objects of belief; but belief is only knowledge where the cognitive relation subsists, *i.e.*, where the object is true, and thus, if Meinong's doctrine of the logical priority of *inferiora* to *superius* is to be maintained, the theory of knowledge must be subsequent both to logic and to psychology.

The relevant facts in regard to perception appear to me to be briefly these: Many propositions, of very various kinds, are self-evident, *i.e.*, are accepted without being proved by means of other propositions. All self-evident propositions,

or rather, such of them as are true, may, in the widest sense, be said to be perceived. But there is a peculiar class of self-evident propositions concerned with particular parts of time, and only becoming self-evident at, or just after, the parts of time with which they are concerned. These, when they are true, may be said to be perceived in the second sense. But some of these, in my opinion, are not properly existential, being concerned with relations which *subsist*, but do not strictly exist, though Meinong maintains that they do exist. (These are what he calls *real* as opposed to *ideal* relations.) Thus we reach the third and narrowest meaning of perception by excluding from our second class all such propositions as are not existential.[1]

The very interesting theory of objects which are "*wahrnehmungsflüchtig*," or fugitive from perception, by which Meinong answers the doubt as to whether objects of higher order can be perceived at all, is almost purely psychological, and will therefore not be discussed here. I also pass by, as lying somewhat outside the main argument, an admirable analysis of the perception of continua considered as complexes. The chief criticisms of the article, from the standpoint which I have adopted, are (1) that the notion of perception, and its epistemological importance, are not made clear; (2) that the object of a presentation or perception is regarded as forming part of the presentation or perception, or at any rate as something necessarily psychical. In regard to this last point, it may be worth while to raise the following question for the consideration of the reader. Is it possible to have a presentation or belief to which no object corresponds? The converse possibility, except by those (of whom Meinong is not one) who hold that there can be nothing that is not known to some mind, will be at once admitted; but the idea of a belief which is a belief in nothing seems at first sight quite inadmissible. Yet, by all analogy, it ought to be possible, if content and object are related as externally as I have contended, for either to subsist without the other. The chief importance of the question is in regard to error. What do we believe when we believe a false proposition? We believe in a relation (say)

[1] The above method of defining perception, though it appears to give a first approximation, is liable to certain objections, which have led Mr. G. E. Moore—with what justice, I do not attempt to decide—to introduce into the definition of perception a causal relation between that whose existence is known and the knowledge of its existence. See his article on "Experience and Empiricism," *Proceedings of the Aristotelian Society*, 1902-3.

between two terms which, as a matter of fact, are not so related. Thus we seem to believe in nothing: for if there were such a relation as we believe in, the belief would not be erroneous. If a belief may be a content which has no object, then it may be true that, though we believe, there is nothing we believe in; and in this case correct beliefs would be distinguished from erroneous ones by the fact that they have an object, while the others have not. But this possibility seems too paradoxical to be maintained except in the last resort; and such cases as true hypotheticals of which the hypothesis is false seem to prove that false propositions must have some kind of extra-mental subsistence. This question is, however, a very large one, being indeed, no other than Pontius Pilate's, "What is truth?" I shall return to it at the end of the present article.

(*To be concluded.*)

IV.—THE USE AND ABUSE OF FINAL CAUSES.

By G. E. Underhill.

In preaching the gospel of natural science Bacon told us "Natura non nisi parendo vincitur". From another point of view Kant replied—"The understanding makes Nature, but does not create it". Both sayings contain great truth; but at most they are only half truths. Scientific discovery is as impossible without scientific imagination as it is without scientific observation. Man can only find what he seeks; yet what he finds is there already. Countless men had seen apples fall to the ground before Newton; and yet Newton alone discovered the law of gravitation. Many a photographer had found his plates spoilt by the X-rays before Röntgen; and yet Röntgen alone discovered the significance of their marks. Nature keeps her secrets well and can be forced to divulge them only by the most strenuous efforts on the part of man, *naturæ minister et interpres;* and the only key with which he can unlock them is himself, his own ideas, his own interests, his own intellect, his own will: and his experience reveals to him not only that Nature is intelligible —more or less—to his intelligence, but pliable to his practical interests, if he but use the proper means. The gulf betwixt him and Nature he finds to be not absolute, but bridgeable by many chains of his own forging. Puny man cannot resist the force of the ocean storm or the fire of the active volcano, but he can use the wind to waft his ships over the sea, and the fire to cook his food or drive his engines. He is at once the victim and the master of Nature, the child and the maker of Nature. He not only discovers the truth of his ideas by observing their agreement with the facts of Nature, but he finds that they work out into practical results. He can never separate theory and practice: without theory no practice, without practice no theory. "Scientia et potentia,"[1] says Bacon, "in idem coincidunt, quia ignoratio causæ destituit

[1] *N. O.*, i., 3.

effectum," and in another passage[1] he quotes with approval the Aristotelian maxim "Vere scire est per causas scire," and the Aristotelian distinction of four causes, Materia, Forma, Efficiens, et Finis: and then follows his famous condemnation of final causes: "ex his causa finalis tantum abest ut prosit, ut etiam scientias corrumpat, nisi in hominis actionibus"—a condemnation reinforced afterwards by Spinoza and under certain limitations sanctioned by Kant, who in his *Kritik of Judgment* has done more than any other philosopher since Aristotle to put the doctrine of final causes on its proper basis—with what success will be considered later.

To clear the ground however let us first consider what exactly Bacon meant, and then why Spinoza was so peculiarly opposed to final cause from any point of view. This done, Kant will enable us to see how far the idea of final cause can safely be used in scientific investigation and in philosophy—what is its use and what its abuse. And then perhaps we shall be in a position to carry his statements a little farther, and frame a more modern doctrine of our own—in spite of Mr. Bradley's warning[2] that "this question of the operation of Ends in Nature is one which, in my judgment, metaphysics should leave untouched".

The passages in the *De Augmentis Scientiarum*, where Bacon deals with final causes, are so often forgotten or misunderstood that it will be well to examine them with some detail. These passages occur[3] when he is speaking of Natural Philosophy, not of the *Doctrina de Homine;* as a matter of fact in the later portion of the treatise, where he deals with man, he never alludes to final causes, although, as we have seen in the *Novum Organum*, he had approved their use "*in hominis actionibus*". *Philosophia Naturalis* Bacon subdivides into *Speculativa*, which is concerned with the investigation of *causes;* and *Operativa*, which issues in the production of *effects*. This *Speculativa* he again divides into *Physica*, which investigates material and efficient causes; and *Metaphysica* (*purgato nomine*), which investigates formal and final causes.

Hence has arisen the first misunderstanding of Bacon's meaning. For his readers have often forgotten that his own favourite "forms"—not indeed "*abstractæ*," but "*in materia determinatæ*"—he also puts under Metaphysica (*purgato nomine*), and have only remembered that he relegates final causes to Metaphysics—to what they take to mean, his limbo for useless notions: whereas in this context he really means by the term Metaphysica what the modern

[1] *N. O.*, ii., 2. [2] *Appearance and Reality*, p. 497. [3] iii., 4.

scientist calls abstract Physics as opposed to applied Physics. What Bacon does blame is the substitution of final for efficient causes in Physics. This he explains quite clearly: thus in Metaphysics (*purgato nomine*) you may properly say "the eyelids with their hairs for a hedge and rampart are to protect the eyes"; or "the firmness of animals' skins is to keep off the heat and cold". But in Physics such final causes are useless: herein the efficient causes must be given; thus "Hairiness," you must say, "is wont to accompany the openings of damp substances (*humiditates*)"; or "the firmness of animals' skins is due to the contraction of the pores in the exterior of the body owing to cold and to the exclusion of air (*deprædationem aeris*)".[1] As he says himself: "neque hæc eo dicimus quod causæ illæ finales veræ non sint, et inquisitione admodum dignæ in speculationibus Metaphysicæ; sed quia, dum in Physicarum Causarum possessiones excurrunt, et irruunt, misere eam provinciam depopulantur et vastant". Again what he blames in Aristotle is not his use of final causes as such, but his attributing final causes or design to Nature instead of to God.

Still worse misunderstood has been the passage in which Bacon speaks of the literal unproductiveness of final causes. Bacon had divided *Philosophia Naturalis*—it will be remembered—into *Speculativa* and *Operativa*. In the following chapter[2] he goes on to speak of the latter and says that *Operativa* falls into two divisions: (1) *Mechanica*, corresponding to *Physica*, which produces by means of material and efficient causes; and (2) *Magia*, corresponding to *Metaphysica*, which produces by means of formal causes. Then he explains that in this subdivision of *Operativa* there is nothing corresponding to the metaphysical (*purgato nomine*) investigation of final causes: "nam causarum finalium inquisitio sterilis est, et tanquam virgo Deo consecrata nihil parit, i.e. non parit opera". Bacon, as the context shows, is here thinking of Physics and Chemistry, and in this sphere it is obvious that final causes can lead to no practical applications. The biological sciences, where alone final causes do lead to practical results, have no place in Bacon's *Philosophia Naturalis*. Later on[3] he has indeed something to say about human anatomy, where he advocates both dissection of corpses and vivisection of animals; but curiously enough he nowhere seems to introduce the conception of function or adaptation, and certainly nowhere introduces the technical term *causa finalis*. Similarly, when later on he comes to speak of Ethics and Politics

[1] *E. and S.*, p. 570. [2] iii., 5. [3] iv., 2.

and their various subdivisions he has not a word to say about Final Causes, although he approved in the *Novum Organum*, as we have seen, of their use *in hominis actionibus*.

In fact the only connexion of Bacon with the doctrine of final causes is accidental. He blames their use in Physics; he approves of their use in Metaphysics = (*purgato nomine*) our modern abstract Physics. But he never explains how they are to be sought for in his own *Metaphysica*. Thus both his rejection and admission of final causes have been, as a rule, misunderstood by writers on logical theory, who have been wont to assign him a place out of all proportion to the importance of his statements about them. Really he throws no light whatsoever either upon their use or abuse.

Spinoza's rejection of final causes is much more uncompromising: but a careful examination of his meaning will show that he rejects their use *ex analogia hominis*, as Bacon put it, not *ex analogia universi*. In fact, of their scientific use he has nothing to say: for in science he adopts the thoroughgoing mechanism of Descartes, and with the biological sciences he has nothing to do. In his time they can hardly be said to have existed. All his arguments against the scientific and philosophical abuse of final causes he has collected together in a brief appendix to the first part of his *Ethica*. There Spinoza traces the search for final causes to the anthropocentric tendency of human thought. "Men commonly suppose," he says, "that all things in Nature act, like themselves, for a purpose; insomuch that they make sure that God himself orders all things for some fixed end; for they say that God made all things for man's sake and man to worship him. The origin and ground of this belief is that men, *being ignorant* of the *real causes* of things and having a desire to seek their own interest, think themselves free to act with a view to the desired end. Of this desired end they are conscious, but they know not the causes which arouse the desire. Thus they come to regard the final cause or purpose of an action as a necessary and sufficient explanation of that action. But if in the case of another person's action they can get no positive information of its purpose, they are obliged to guess from the analogy of their own motives by which they have on other occasions been determined to actions of a similar kind. Then finding so many things in nature useful for human life—the eyes for seeing, the teeth for masticating, vegetables and animals for food, the sun for light, the sea for feeding fishes, etc.—they regard all things as instruments for man's use; and knowing that they found and did not make these conveniences, they infer

that some ruler of the world, having freedom like that of human agents, must have made them of set purpose for the benefit of mankind." Convinced that Nature does nothing in vain, *i.e.* without regard for the use of mankind, men persuaded themselves that all Nature's inconveniences—like storms, earthquakes, plagues, etc.—were sent them as punishments for wrongdoing. And, says Spinoza, "though experience did every day protest, showing by numberless examples that conveniences and inconveniences befall the pious and impious alike, they found it easier to assume that mischievous things had unknown uses than to reconstruct their habits of thought; and so made the further assumption that the counsels of God were far beyond human understanding".

Spinoza proceeds to bring forward further arguments to show that "omnes causæ finales nihil nisi humana esse figmenta". Among these arguments are: (1) that it is to mistake effect for cause and *vice versâ;* (2) that it makes what is by nature prior, posterior; and (3) that it makes what is most perfect and supreme, most imperfect: for if God acts for an end, it must needs be that God desires something which he lacks and *ipso facto* is imperfect. Moreover upholders of final causes defend their doctrine by a new method of arguing—by reduction, not *ad impossibile*, but *ad ignorantiam.* For example, a tile falls from a roof on a man's head and kills him: the tile, they argue, must have fallen on purpose to kill him. Otherwise, if it had not been God's will, how could all the circumstances have concurred just then and there? You may answer: It happened because the wind blew and the man was passing that way. They will urge—Why did the wind blow and why did the man pass that way just at that time? If you suggest fresh reasons, they will ask similar questions, because there is no end of such questioning, until you take refuge in that *ignorantiæ asylum,* the will of God.

Finally Spinoza goes on to explain that current notions of good and evil, order and chaos, beauty and ugliness, etc., are relative to men's organs and dispositions. Thus men call whatever conduces to their own well-being *good;* whatever is the opposite of this *bad.* And because those who do not understand the nature of things, have nothing true to say about them, but only *imagine* things and mistake their *imaginations* for understanding—on that account they are firmly convinced of an *order* in things. For those things which are of such a sort that, when they are present to our senses, they can easily be imagined and consequently be

remembered easily, men are apt to call well-ordered; and things of a contrary sort, ill-ordered or confused. This good *order* they attribute to a beneficent Deity, quite forgetting the infinity of things which surpass our feeble imaginations. And thus it is that good and bad, beautiful and ugly, etc.—notions which are nothing but human ways of imagining things,—come to be considered by the ignorant as the most important properties of *things themselves*.

In the same way Spinoza would answer the common difficulties concerning his doctrine of the perfection of the universe. If, it is objected, everything is the result of God's perfection, whence come the many imperfections of Nature—corruption, ugliness, disorder, evil, sin? These, Spinoza answers, are merely human ways of imagining things. "For the perfection of things," he says, "is to be estimated from *their own* nature and power alone: and things are not more or less perfect because they delight or offend the senses of men, or because they are convenient or repugnant to human nature. If any ask, why God did not so create men that they should be governed by reason alone, I answer but this: because he lacked not matter for creating all things—from the highest down to the lowest degree of perfection: or to speak more exactly—because the laws of his own Nature were so vast as to suffice for producing all things which can be conceived by an infinite understanding."

Here Spinoza leaves his arguments — arguments all directed against *causæ finales ex analogia hominis*, interpreted in terms of human interests—against what Kant, as we shall see, calls external ends as opposed to internal ends—against ideals not yet real but to be realised. For to Spinoza God and the universe, as in God, are perfect ἐνεργείᾳ and are never more or less perfect: so there can therefore be no future realisation of an end, because all is perfect as it is. For him there is no εἶδος existing only δυνάμει, whose τέλος it is to be realised ἐνεργείᾳ: for if the universe be taken as a whole, it is already and always ἐνεργείᾳ ὄν. In Spinoza's universe there is no place for change or development; all is real and actual. It is τελεῖον already, because God is τελεῖος; and thus the εἶδος is the τέλος and the τέλος is the εἶδος.

Thus final causes are to Spinoza mere illusions, *first* because they are *humana figmenta*—not the real causes or real properties of things, which are only ascertainable by the mathematical sciences; *secondly*, because in defiance of experience they interpret all things in terms of human utility and convenience, whereas there is no reason to suppose that man is the centre of the universe; and *thirdly*, because they

are inconsistent with his own conception of God and the universe, which admits neither of time nor change nor imperfection. But we may ask, are final causes any more or less *humana figmenta* than the mechanical and mathematical conceptions of science, which Spinoza assumes to be real properties of things? Again, are final causes necessarily interpreted in terms of human utility and convenience? and finally are time, change and imperfection mere illusions, merely relative to man?

Kant's treatment of final causes in the second part of the *Kritik of Judgment* will help us towards a solution of all three difficulties: he has once and for all settled the logical place of final causes in the biological sciences. He draws a clear and important distinction between internal and external ends or purposes. In the latter sense final cause is utility, *e.g.* iron is useful to men for ship-building, and with final cause in this external sense the biological sciences have nothing to do. By internal end Kant signifies the function or functions in an organism which the various organs are adapted to fulfil, *e.g.* sight is the internal end of the eye, hearing of the ear, the mature animal of the embryo. "For example," says Kant,[1] "a tree may in three ways be so regarded as an end to itself or internal end. (1) A tree generates another tree according to known laws. But the tree produced is of the same genus; and so it produces itself *generically*: for in the genus it as *effect* is continually produced by itself, and as *cause* continually maintains its generic existence by repeated self-production. (2) A tree produces itself as an individual. This kind of effect we call growth; but growth is quite different from any increase according to mechanical laws, and is just generation under another name. In adding to its bulk the tree first communicates to the new matter which it absorbs a characteristic quality, which cannot be bestowed by the mechanism of nature without it; and thus the tree develops itself by aid of a material, which as to its mode of composition is its own product. For though, as respects the constituents got from nature without, such material must be regarded as having merely a derived existence; yet in the separation and recombination of this raw material the tree displays an originality with which art cannot attempt to cope. . . . (3) The parts of the tree produce each other in such a way that the maintenance of any one part depends reciprocally on the maintenance of the rest. The bud or scion of one tree grafted on another produces in the alien stock a

[1] § 64.

plant of its own kind. Hence we may regard every twig or leaf in a tree as merely grafted on it and so as an independent tree which attaches itself to another, and parasitically nourishes itself therefrom. At the same time while the leaves are the products of the tree, they likewise in turn give support to it; for the repeated defoliation of a tree would kill it, and its growth thus depends on the reaction of the leaves upon the stem." Such internal ends,[1] or ends of nature, have the following characteristics: (1) As in a work of art, the parts are in their existence and their form conditioned by their relation to the whole. (2) The parts must be so united in the whole, that they are reciprocally causes and effects of each other's form, and that each is in relation to the others a productive organ. In other passages Kant warns us against ascribing intelligent design to nature. "Nature," he says,[2] "we do not regard as an intelligent being." And again—"Objective purposiveness, as a principle of the possibility of things of nature, is so far removed from *necessary* connexion with the concept of nature, that it is much oftener precisely that upon which one relies to prove the contingency of nature and its form. When, *e.g.*, we adduce the structure of a bird, the hollowness of its bones, the disposition of its wings for motion and of its tail for steering, etc., we say that all this is contingent in the highest degree according to the mere *nexus effectivus* of nature—without calling to our aid a particular kind of causality, namely, that of purpose, *nexus finalis*. In other words, nature, considered as mere mechanism, might produce its forms in a thousand different ways without stumbling upon unity in accordance with such a principle. It is not *in* the concept of nature, but quite *outside* it that we can hope to find the least ground *a priori* for this.

"Nevertheless," Kant goes on, "the teleological act of judgment is rightly brought to bear, at least problematically, upon the investigation of nature; but only in order to bring it under principles of observation and inquiry according to the *analogy* with the causality of purpose, without any pretence to *explain* it thereby. It belongs therefore to the reflective and not to the determinant judgment." In other passages Kant calls final cause a heuristic principle or again a regulative, not a constitutive judgment—phrases which in plainer English mean that the conception of final cause is a mere postulate or working hypothesis, which experience teaches us to be of great service in the investigation of all organisms,

[1] § 65. [2] § 61; cp. § 68.

vegetable and animal. But the distinction between reflective and determinant judgment, or its synonyms regulative and constitutive judgment, goes back to the Kantian epistemology —to his own arbitrary distinction between Understanding and Reason, according to which efficient causality is a conception of the Understanding, but final causality an idea of the Reason. According to this doctrine, the ultimate laws of Nature, like causality, substance and reciprocity, are *a priori*, universal and necessary, and as such are conceptions of the Understanding, which, though they become consciously known in the course of our experience, are in no sense derived from experience, but are *a priori* principles of synthesis which the Understanding imposes upon Nature and by aid of which the Understanding produces order and system out of the chaos of sense-perceptions. Yet at the same time that Kant claims this *a priori* origin for the most general laws of Nature, he admits the empirical origin of all the more special laws of Nature, like, *e.g.*, the law of gravitation and the laws of motion, though he is unable to give us any differentia, whereby to distinguish the one class of laws from the other. In fact we have here come upon the weak point in Kant's whole theory of natural science. By a sort of circular argument he assumes that these most general laws of Nature are *a priori*, because they are universal and necessary; and that they are universal and necessary, because they are *a priori*. He does not appreciate the significance of Hume's distinction between relations of ideas to one another and matters of fact, and so fails to see that the necessity of all natural laws, so far as they have any necessity at all, is only logical, not real, necessity. In other words he does not realise the full significance of the ideality of the subject-matter of all the natural sciences, that no science deals with the concrete individual of perceptual experience as such, but only with certain aspects common to many individuals, which are abstracted ideally from their particular surroundings; and that it is in this sense that science, as Aristotle said, is always of the *καθόλου*, never of the *καθ'ἕκαστα*.

We shall understand this better if we take Kant's category of causality as our example, the category which he regards as the most fundamental of all the laws of Nature. Hume, testing the conception by reference to our sense perceptions, had reduced causality to invariable succession; and the necessary connexion regarded by philosophers as underlying our conception, he maintained, was only a mental fiction due to the arbitrary association of our ideas of actual causes and effects. Kant replied that causality is not a mental

fiction, but a mental principle of synthesis, and that without causality as a *prius* we could never attain to the idea of succession at all. But if Nature be taken in its mechanical aspect only, as consisting of the primary qualities of matter, Hume's analysis is perfectly right. In this mechanical world causality, so far as natural science can know it, is mere succession; and the causality which Kant would attribute to Nature is the efficient causality which we are conscious of in the actions of our own wills. Whether ultimately we are justified in attributing *ex analogia hominis* the same or similar causality to Nature is a further question and a metaphysical question. But with such causality mechanical science as such has nothing to do: it can get on better without assuming it and *entia non sunt multiplicanda præter necessitatem*. In fact, if by Nature we mean the Nature of mechanical science (and this is what Kant in this context does mean by Nature), causality in its full sense is not a constitutive principle or determinant judgment at all. So long as we stick to quantities causality is merely the invariable sequence of consequent upon antecedent, nothing more nor less: for such sequence alone admits of mathematical determination in terms of number and quantity. Really,[1] the objects of all mechanical sciences are not the things of common experience as such at all, but only one particular aspect of them, namely, their primary qualities; and this aspect, like all other particular aspects, is arrived at by mental abstraction and construction. Equally true is it that the mechanical explanation or description of these primary qualities, when it is given, is just as much a mental product. Though it deals with matter and motion, it is expressed in terms of law, number, or measure—all three of them mental products. But so soon as we pass from quantitative to qualitative relations and changes, causality merely as succession is not sufficient. As a working hypothesis we find ourselves forced to use the notion of efficient causality, of the power to produce, as when we observe the heat of the sun melting wax. Mechanical science of course attempts to reduce qualitative to quantitative relations; but when it is unable to do so—and in many cases it is unable—then it can hardly move a step without the working hypothesis or conception of efficient causality. In Kantian language we use efficient causality as a heuristic principle, going beyond our sense-perceptions in order to reduce their manifold to unity. Only, as we have seen

[1] Cp. Sturt's *Personal Idealism*, p. 207.

already, Kant is not content with calling the law of causality a mere heuristic principle. He calls it a category of the Understanding, which the Understanding uses in its creation of Nature, and which, as an *a priori* principle of synthesis, is just as universal and necessary as are the laws of logic and mathematics. But for science, whatever it may be for metaphysics, we maintain that this is just what it is not. As Paulsen puts it,[1] "in physics we have to reckon with an irrational factor, which renders it impossible to decide upon the truth of propositions by means of mere immanent reflexion; we must consult sense-observation. And this irrational factor does not disappear even in the ultimate principles. It is attached to the laws of biology and chemistry, and likewise to the laws of mechanics. . . . What they need is a working maxim for their investigation, and they have that in the law of causality or the principle of the uniformity of nature, even if it is not a law of the pure understanding, but merely a principle constructed by the understanding on the basis of the datum and found to be useful."

So when we pass from physics and chemistry to biology—to the science of organisms, our logical procedure is exactly the same. Organisms as concrete particular individuals are not possible objects of science at all, until we can discover what common qualities they possess. These common qualities we can in thought abstract from the particular individuals possessing them, and according to their different natures they fall within the scope of different sciences, each of which in its investigations uses its own appropriate principles (*ἰδίαι ἀρχαί*) or working hypotheses. So far as organisms exhibit mechanical properties, these properties, these quantitative relations, are dealt with by the mechanical sciences of number and measure, where causality as mere succession reigns supreme. Again, so far as organisms possess chemical qualities, they are dealt with by chemistry; and when these chemical qualities defy analysis in terms of quantity, then the chemist finds himself obliged to introduce efficient or productive causality as his working hypothesis, simply because his own and others' experience proves it to be useful. Finally organisms, over and above these primary and secondary qualities, exhibit the adaptation of organs to functions; and here the only fruitful principle that the biologist can use is the conception of final cause—of the adaptation of means to ends, which like the principle of efficient causality and in-

[1] *Kant*, E. T., p. 205.

deed all other scientific principles, has its basis in our own experience, in this case, the experience of our own conscious adaptation of means to ends in our voluntary actions. But he need not, in fact he does not, use the conception in its entirety—at least for the purposes of his science. For though he cannot get on without the conception of adaptation of means to ends, he need not, as a biologist, assume in the organisms with which he is dealing, self-conscious personal subjects, who purposely design means to carry out preconceived ends. Such an assumption is quite unnecessary, because it is not required for his interpretation of the observed facts of his science. It is not an element in the abstract conception of organism, which *ex hypothesi* stands as the fundamental conception of his science. On the other hand the sociologist in investigating the facts of human society makes the conception of purposively acting self-conscious agents the starting-point or working hypothesis of all his subsequent researches. Such then is the logical place of final cause in biological science: it is the appropriate conception which the nature of the subject-matter forces the mind to use in its investigation of the adaptation of means to ends in organisms, and its justification is simply its success. No biologist can get on without it; the written works of all biologists from Aristotle to Sir Michael Foster are full of it.

But before we leave the place of final causes in biology, there is one other point to be noticed, which goes far to explain the prejudice still found in modern scientists against them.[1] This point is that the conception of final cause has often led to the discovery of the efficient and mechanical causes, as, *e.g.*, in the case of Harvey's discovery of the circulation of the blood; and that as the latter alone are practically useful, final cause may be neglected as the mere scaffolding to the main building. Thus Robert Boyle[2] tells us: "I remember that when I asked our famous Harvey, what were the things which induced him to think of a circulation of the blood, he answered me that, when he took notice that the valves in the veins of so many parts of the body were so placed, that they gave a free passage to the blood towards the heart, but opposed the passage of the venal blood the contrary way—he was incited to imagine that so provident a cause as Nature had not placed so many valves *without design*, and no design seemed more probable than that the blood should be sent through the arteries and

[1] Cp. Sigwart, *Logic*, Eng. Trans., ii., 172.

[2] *Inquiry into the Final Causes of Natural Things*, §§ 1-2.

return through the veins, whose valves did not oppose its course that way". Harvey's observation of the function or final causes of these valves led him to the investigation of the mechanical problem, how, when so much blood was forced out of the heart at each beat of it, the supply of blood was yet maintained, and to this problem he discovered the mechanical solution in the circulation of the blood. Now the description of mechanical causes always admits of much greater precision—often mathematical precision—than the description of final causes, and moreover mechanical causes come first in the order of production and are therefore of more practical use. But, as Sigwart points out,[1] so far from there being any inconsistency between the two points of view, "the final concept does not contradict the causal treatment, but insists upon it". The end *P* is the joint product of certain efficient causes *abc*, working in relation to each other, and the mind of the investigator can travel according to convenience either backwards from *P* to *abc*, or forwards from *abc* to *P*. Here[2] "the importance of the final concept rests only upon the fact that it expresses the unity of a system of parts which are such that when taken in isolation we are unable to deduce this particular combination (*P*) from their nature". This procedure is precisely like the procedure in geometry when we assume the problem already solved with the view of discovering geometrical means to its solution.

Enough however has now been said to prove the utility of the concept of "internal" final cause in biological science; for if it can be shown to be useful, no other justification is needed for its scientific adoption—any more than for any other scientific working hypothesis. But the evolutionary biologist cannot stop here: for he is concerned[3] not only with (1) "the universal essence upon which the organic is grounded" and (2) "its laws of development," but also with (3) "the external causes which determine it in this or that direction". Here he cannot indeed avoid the application of the conception of "external" final cause as a working hypothesis for his study of the *environment* of organisms, but he finds its application far less successful and universal. As Kant puts it,[4] "the internal form of a mere blade of grass is sufficient to show that for our human faculty of judgment its origin is possible only according to the rule of purposes. But if we change our point of view and look to the use which other natural beings make of it,

[1] Sigwart, ii., p. 176.
[2] *Ibid.*
[3] Cp. Sigwart, ii., p. 332.
[4] § 67.

abandon the consideration of its internal organisation and only look to its externally purposive references, we shall arrive at no categorical purpose. . . . Hence it is only so far as matter is organised that it necessarily carries with it the concept of a natural purpose, because this, its specific form, is at the same time a product of nature. But this concept *leads necessarily* to the idea of collective nature as a system in accordance with the rule of purposes." In other words the biologist is led to make the assumption that "everything in the world is in some way good for something: nothing is vain in it". "By the example that nature gives us in its organic products we are justified,"[1] says Kant, "nay, called upon, to expect of it and of its laws nothing that is not purposive on the whole." Then the assumption of external purposiveness once made, the only way to justify it is to discover how far it works. "There is," says Kant,[2] "only one external purposiveness which is connected with the internal purposiveness of organisation, and yet serves in the external relation of a means to a purpose, without the question necessarily arising—to what end this being so organised must have existed. This is the organisation of both sexes in their mutual relation for the propagation of their kind; since here we can always ask, Why must such a pair exist? The answer is: This pair first constitutes an *organising* whole, though not an organised whole in a single body."

Similarly the conception of external purposiveness is useful as a principle of synthesis in tracing the development of plants and animals in relation to their environment. The biologist uses the conception in studying the adaptation of the eye to the properties of light, of the teeth of various animals to their varying kinds of food, of the organs of locomotion to the varying modes of traversing space and its obstacles. He uses it again in the study of animal instincts, *e.g.*, the building instincts of wasps, bees, birds, beavers; or again the instincts of concealment amid their surroundings found in so many insects, animals, and plants. But in all such cases he takes for the end subserved the preservation of the life and health of the animal or plant in question.

But when we extend the conception of external cause to nature as a whole, we find as many destructive as preservative agencies. The waste of nature staggers the most downright optimist. War, pestilence and famine are as rife among animals and plants as among men; and even if we grant—what is a very large assumption—that in the

[1] § 67. [2] § 82.

struggle for existence not only the *fittest* but the *best* always survive and that the progress is ever upwards, still this progress is bought at a most frightful cost of pain, suffering and death, not merely of individuals, but of whole races of plants and animals. Such problems however are moral and metaphysical and have nothing to do with the logic of final causes in the biological sciences. In these sciences the conception of final cause, in the external applications just briefly indicated, is as much a methodological postulate as in its internal applications: and its justification depends here also solely upon its utility. Here also its use is analogical—drawn from our conscious subordination of means to ends in our voluntary actions; and in using it the biologist reasons as if Nature were an intelligent agent consciously selecting adequate means to preconceived ends. At the same time he is or should be well aware of the limitations to its legitimate use. He uses it to reduce to unity the manifold facts, observed through sense perception, of plant and animal life, and for the purposes of his science he need not postulate that Nature is an intelligent cause in the same sense as he knows himself to be intelligent, nor yet that Nature preconceives her ends in idea, which she purposes to make real in fact, in the same way that he himself proceeds in his own voluntary actions. His science does not need such assumptions, and if made, they produce confusion and illusion; and for this reason biology will have none of them, and rightly so.

But even the biologist is a man, and every man, we know, is a metaphysician. So what are mere postulates to the biologist become the gravest problems to the metaphysician. The latter asks, how are they possible? what do they imply? and Kant himself in an appendix to the *Kritik of the Judgment* goes far to propound a solution, though he never worked out his ideas.

Kant's starting point is the necessity of the conception of final cause in the sciences of organic life.[1] "(1) *For the reflective* judgment," he says, "it is therefore quite a correct fundamental proposition, that for that connexion of things according to final causes which is so plain, there *must be thought* a causality distinct from that of mechanism, *viz.*, that of an (intelligent) cause of the world acting in accordance with purposes, but (2) for the *determinant* judgment this would be a hasty and unprovable proposition. In the first case it is a mere maxim of the judgment, wherein

[1] § 71.

the concept of that causality is a mere '*idea*,' to which we by no means undertake to concede reality; but which we use as a guide to reflexion, which remains thereby always open to all *mechanical* grounds of explanation and does not withdraw out of the world of '*sense*'. In the second case the proposition would be an objective principle prescribed by *reason*, to which the determinant judgment must subject itself, whereby however it withdraws beyond the world of *sense* into the transcendent and perhaps is led into error."

As to the existence of final causes in nature, Kant points out, four views have been prevalent in philosophy: two he calls Idealist, and two Realist; the two former denying and the two latter admitting their real existence.

(1) The Idealists explain final causes away as an illusion: either (α), like Democritus and Epicurus, reducing everything to mechanical causation without attempting to account for the delusion; or (β), like Spinoza, reducing final purposiveness to fatality, and explaining the illusion of mutual adaptation in things as due to the unity of the substratum of all natural things.

(2) The Realists are either (α) Hylozoists who explain the purposes in Nature—upon the analogy of a faculty acting with design—by the life of matter, a world-soul, *anima mundi*; or (β) Theists, who explain them as derived from an intelligent Being, a God, who produces them with design. Kant, as we shall see, holds to the last view as a matter of faith, but denies that it is a provable proposition.[1] It is not provable because "the concept of a causality of nature according to the rule of purposes, still more of a Being such as cannot be given us in experience (*i.e.*, through sense-perception)—a Being who according to the rule of purposes is cause of Nature—though it is thinkable without contradiction, is not to be dogmatically asserted: for it is neither derived from experience nor necessary (*i.e.*, like causality) to the possibility of experience". It is not however a matter of blind faith, but of a faith based on a critical analysis of scientific method: "We cannot," says Kant,[2] "otherwise think and make comprehensible the purposiveness which must lie at the bottom of our knowledge of the inner possibility of many natural things than by representing it and the world in general as a product of an intelligent cause (a God)."

So far and no farther Kant's critical analysis carries him; but after all he does not rest content with his own conclusion. Reason, as distinct from understanding, demands more than

[1] § 74. [2] § 75.

a mere reflective principle of judgment; and Kant attempts to satisfy these demands by admitting the possibility—in the sense of implying no inherent contradiction—both of an intelligent cause of Nature and of a supreme end of Nature. The former is God, the second is man. How then does Kant arrive at making man the supreme end of Nature?

As a natural organism Kant is never weary of pointing out that man is no more the end of nature than any other organism. "Nature," he says,[1] "has not taken him for her special darling and favoured him with blessings above all animals. Rather, in her destructive operations—plague, hunger, perils of waters, frost, assaults of other animals great and small, etc.—in these things she has spared him as little as any other animal. . . . Man is then always only a link in the chain of natural purposes—is a means for the maintenance of purposiveness in the mechanism of the remaining links."

How then, once more we ask him, is he Nature's supreme end? "As the only being on earth," Kant answers, "which has an understanding and consequently a faculty of setting arbitrary purposes before itself,[2] he is certainly entitled to be the lord of Nature; and if Nature be regarded as a teleological system, he is by his destination the ultimate purpose of Nature. But this is *subject to the condition* of his having an understanding and the will to give to it and to himself such a reference to purposes as can be self-sufficient *independently* of Nature, and consequently can be a final purpose; which final purpose however must not be sought in Nature itself."

Obviously man's happiness is not the supreme end of Nature: for "the value of life[3] for us, if we estimate it by that which *we enjoy* (by the natural end of all our desires which is happiness), is easy to reckon. It is less than nothing." But there is another supreme end possible—man's culture and moral discipline; and from this point of view we can regard Nature as a means to man as its end, and we can see "what Nature can do for man to prepare him for that which he must do for himself in order to be the final end".[4]

From the point of view of *culture* Nature tends to develop man's power of setting ends to himself and his capacity to make out of his life an ordered whole, by putting him in war and competition with his fellow-men—strenuous conditions which impel him to self-reliance and inventive-

[1] § 83. [2] § 83. [3] § 83, note. [4] § 83.

ness.[1] Thus, says Kant,[2] "this splendid misery is bound up with the development of the natural capacities of the human race, and the purpose of Nature itself, although not our purpose (*i.e.*, happiness), is attained." From the point of view of discipline Nature only indirectly helps to make man "receptive of higher purposes than she can herself supply, and to free his will from the despotism of desires through the experience which he gains of the benefits of self-mastery and the evils entailed by the loose indulgence of his natural inclinations".[3] It is then not as a natural, but only "as a moral, being that man can be the final purpose of creation".[4] Why? Because, says Kant, in him alone we find "teleological causality," *viz.*, he alone sets up ends before himself; and because "man alone represents the law according to which he has to determine purposes for himself (the moral law), as unconditioned and independent of all natural conditions".[5] "If now things of the world, as beings dependent in their existence, need a supreme cause acting according to purposes, man is the supreme end of creation; since without him there would be no ultimate point in Nature to which the chain of subordinate ends could be attached. Only in man and only in him as subject of morality do we meet with unconditioned legislation in respect of purposes, which therefore alone renders him capable of being a final end or purpose, to which the whole of Nature is teleologically subordinated."[6]

Here Kant leaves the question of man as the supreme end of Nature to pass to the question of the intelligent *cause* of Nature.

Physical teleology, according to Kant, can never become a physico-theology, though it is of great value as a propædeutic to theology. At most it can only[7] "justify the concept of an intelligent world-cause, as a *subjective* concept (only available for the constitution of our theoretical faculty) of the possibility of things that we can make intelligible to ourselves according to purposes; but it cannot determine this concept further; and it cannot determine this concept further, because the purposive reference in physical teleology is and must be always considered only as conditioned *in* Nature, and it consequently cannot inquire into the purpose for which Nature itself exists (for which the ground must be sought *outside* Nature). Physical teleology does indeed interpret natural purposes according

[1] Caird, *Kant*, ii., p. 501. [2] § 83. [3] § 83.
[4] § 84, note. [5] *Ibid.* [6] *Ibid.* [7] § 85.

to the analogy of our own voluntary activities; but as such, it cannot tell us whether the agent is really *intelligent*, or *perfect*, or even whether it is *one*." On the contrary, with all our knowledge of Nature it remains quite undecided whether the supreme cause is an all-wise and all-moral God or only an "understanding determined by the mere necessity of its nature to the production of certain forms (according to the analogy of what we call the *art-instinct* in animals)".[1]

The question therefore can only be solved by moral theology. Only as a moral being, Kant has already shown us, can man be the final end of nature.[2] "A good will is that whereby alone his being can have an absolute worth, and in reference to which the being of the world can have a final purpose." But "such realisation of the supreme end through morality"—to quote Dr. Caird's[3] summary of Kant's argument—"is no *natural* sequence of effect or cause; for there is nothing in the connexion of physical causes that has any relation to such an end. We are forced therefore by the same *moral* necessity which makes us set before us such an end, to postulate *outside* of Nature a Cause that determines nature so as finally to secure this result; and from this follows necessarily the idea of an all-wise, all-powerful, all-righteous, all-merciful God." We have a "pure moral need for the existence of such a Being; and our moral needs differ from physical needs in that they have an *absolute* claim to satisfaction".

The existence of such a Deity is therefore, not a theoretical, but a *practical* postulate.[4] This postulate compels us to think of God "as a rational Being, who is guided by the idea of an end and who uses Nature as means to it"; but this conception rests on an imperfect analogy: such separation of means and ends holds only from a human point of view. For "though[5] in us morally practical reason is essentially different in its principles from technically practical reason, we cannot assume that it must be so likewise in the supreme World-Cause, or that the divine intelligence, in subordinating nature to the final end, needs to exert a special kind of causality, different from that which it exerts in producing those natural things which are ends to themselves. While therefore we have in our own final purpose a *moral ground* for assuming a final purpose of creation as an effect, we have not in the same sense a *moral ground* for assuming a Moral Being as the source of creation. All that we can say is that, con-

[1] § 85, end. [2] § 86. [3] Caird, *Kant*, ii., 504.
[4] Cp. Caird, *ibid.*, p. 505. [5] § 88, p. 387.

sistently with the nature of our intelligence, we cannot make intelligible to ourselves the possibility of such an adaptation of Nature to the moral law and its object as is involved in the final end which the moral law commands us to aim at—except by assuming the existence of a Creator and Governor of the world, who is a moral legislator.

Thus for Kant there is no theoretical or scientific proof of the existence of a moral Deity—not even a working hypothesis: for a scientific hypothesis must at least be certain of the possibility of a given phenomenon, *i.e.* as a possible object of sense perception. The being of God is a matter of *faith*, but of faith as grounded in our reason as necessary for its self-determined ends. And for Kant moral necessity has always an *absolute* claim to which theoretical reason can make no pretence.

No philosopher has really done more than Kant to prove the truth of the maxim that the sciences are special but philosophy is general; and yet at the same time he was so steeped in the psychology of separate faculties, that his philosophy to the end remained a sort of system of water-tight compartments with no channel of communication from one to the other. He so rigidly distinguishes between sense, understanding and reason, between the subject and the object, the *a priori* and the *a posteriori*, the theoretical, practical, and æsthetic, the necessary and universal as against the contingent and particular, that he never succeeds in bringing them together again, although the whole tendency of his teaching is to show that such distinctions are not ultimate, and that the real business of philosophy is to discover a principle of unity whereby to overcome them.

Science, it has been well said, must treat the world of objects as self-subsistent in abstraction from the knowing subject. Philosophy must start from the ultimate fact of the duality of subject and object in the unity of experience and reinterpret the lessons of the sciences, of psychology, of ethics, of religion in their relations to the thinking and willing subject. It cannot limit, as Kant always tends to do, experience to the sphere of sense-perceptions; but it must recognise that in all departments of human activity and knowledge, in mathematics, in the natural sciences, in psychology, ethics, sociology, and religion, practical interest is an essential element, and that in all experience alike the two factors are present, *viz.*, subject and object: and that everywhere alike consistency of all the elements with the whole and with each other—the elements both of knowledge and of practice

—is the only and the ultimate test of truth. The fundamental assumption of all investigation is that the object, in whatever sphere it may be, is intelligible, and from this it follows that so far as it is intelligible, just so far is it an object made by mental construction. Even mathematics is no exception.[1] "Exact reasoning" (in Mathematics), says Mr. Peirce, "is a process of experiment performed upon an artificial object, an object made indeed by the mathematician, but observed by him just as truly as a star or as a physiological process is observed by the student of another science, experimented upon just as truly as one experiments in a laboratory."[2] Mr. Schiller, too, in company with other well-known logicians, has recently tried to show us that axioms and other so-called necessary truths are in their origin postulates and working hypotheses which experience has shown us to work well, and that their origin is to be found in our own practical needs in dealing with the world of objects around us. Man is the child of Nature: and he can only know Nature in so far as he can see himself in her, and only master Nature in so far as he can make her subserve and conform to his practical needs. His most fundamental ideas, space, time, number, identity, similarity, causality, etc., all have their origin in the contact of his mind with other minds and natural objects, and he extends their dominion and believes in their validity just so far as they are verified in his experience. Some of them are exact, like number and measure, and as such they specially commend themselves to the man of science: others do not admit of this exact expression and so are regarded as of less value in science, and *final cause* is a conception of the latter class. Its origin in reflexion upon the conscious process of man's voluntary actions is obvious. By analogy man extended it to the acts of animals and plants, even to inorganic things, and to the universe as a whole: in some cases he found the conception work well as an hypothesis, in others ill; but as in the case of other conceptions, so here experience is the only test of its validity and of the extent of its validity. Hence we are now in a better position than were Bacon, Spinoza, and Kant to estimate its value; for we have seen it applied with the most successful results in the biological sciences, which were practically non-existent in the lifetime of those philosophers. It is true that the biologist in investigating the adaptation of organism to environment and of environment to organism

[1] Quoted by Prof. Royce, *The World and the Individual*, i., 254.

[2] Cp. Sturt's *Personal Idealism*, p. 50 ff.

by the process of natural selection does not stop or need to ask, whether such adaptation is the result of conscious design, and that he speaks of the variations as due to "*chance*," *i.e.*, to causes of which he knows nothing or little. But to the philosopher this modest limitation of the biological postulate makes but little difference. As to the origin of the conception in the conscious human will he has no doubt whatever, so that the success of the scientist's application of final cause is for him a most important piece of evidence for the unity of the active principle at work in Nature and in man. In Kantian language it shows him that final cause is no mere reflective judgment, no mere illusory hypothesis, but a constituent element in Nature, just as much as the principle of causality. And so it is with all the principles which the human intelligence uses successfully to make the world of nature intelligible to itself. As Dr. Caird puts it,[1] "Thus we are led to think of one principle underlying all differences, and which, through the difference and apparent external determination of different material elements by each other, is working towards the realisation of itself". Man's science, man's philosophy, man's religion—all are anthropomorphic, and rightly so. For the not-self can only exist in relation to the self, so that the extension of knowledge and power over the one element carries with it or rather is identical with the extension of knowledge and power over the other. *Anthropomorphic* philosophy and science must always be : but they must rest not on the transient sense-perceptions of the individual man, but on the rationally constructed experience of the human race.

[1] *Kant*, ii., 541.

V.—THE PSYCHOLOGICAL MEANING OF CLEARNESS.

By I. M. Bentley.

Two important questions may be raised respecting the psychological use of the term 'clearness'; the first, how is the concept employed in current systems of psychology? and, the second, what is the relation of clearness to mental analysis and to the general features of consciousness, chiefly attention?

Clearness or some analogous aspect of mental phenomena has long been recognised in psychology and philosophy. Locke, *e.g.*, distinguishes between clear and obscure ideas on the one hand, and distinct and confused ideas on the other. Leibniz uses similar terms to denote the adequacy and the inadequacy of knowledge, Wolff makes clearness an essential feature of attention and Herbart derives it from the conflict of ideas. But it is only within modern times that the concept has been given an important and definite function in psychological systems.

In Wundt's psychology, clearness is brought into connection both with the analysis of mental experience and with the general characterisation of consciousness. All mental contents may be considered, according to Wundt, as magnitudes; either intensive—the simple sensations and feelings—or extensive—the simple groupings of these elements. Intensive magnitudes are of two kinds; qualitative gradation and degree of strength. Extensive magnitudes are, likewise, of two kinds; temporal and spatial distances.

To the two general classes of intensive magnitudes is, now, to be added the magnitude *clearness*.[1] Clearness is intensive because its degrees may be arranged in an intensive series. To the two general classes of extensive magnitudes is, likewise, to be added the magnitude *distinctness*, which represents the *relative* clearness with which one process is set off from other processes. From this analysis, it would seem to follow that clearness is to be classed with quality and intensity as aspects of simple sensations and feelings; distinctness with spatial and temporal distances, as aspects of the simple grouping of sensations and feelings. Clearness would thus be a function of a simple process, distinctness a

[1] *Logik*, Bd. ii., Abth. 2 (1895), 179.

function of a plurality of related elements. We shall see, however, in a moment, that this is not Wundt's final meaning.

As regards the relation of clearness to the general aspects of consciousness, Wundt explains that change of clearness is the objective side of apperception.[1] In other words, that an increase of clearness is the result of bringing into prominence, of setting in relief, a part of consciousness. Increase in distinctness, on the other hand, is the result of the separation of one part from other parts. Both are effects of a relating activity whose function is analysis (*beziehende Analyse*).

Clearness is, then, both a mental magnitude and a function of apperception. There are not, however, two kinds of clearness. There is but one; and this is not an attribute of sensation, as it at first appears to be, but invariably a feature of the apperceptive consciousness.

There is sufficient justification for our statement that Wundt—even while he denominates it a simple magnitude—does not regard clearness as a property of the sensation. In the first place, it does not appear in his discussion of the qualitative analysis into elements.[2] Again, in the *Grundzüge*,[3] clearness is held to be an attribute exclusively of ideas, which can be transferred to sensations only as the latter are considered constituent parts of ideas. Thirdly, clearness is said to differ from intensity of sensation in that intensive change is a change in the sensation itself, while change of clearness is an alteration in its relation to other contents.[4] An impression, *i.e.*, is apprehended as clearer in relation to other impressions which, by comparison, appear obscured. And, finally, the physiological correlate of clearness is not any specific change in the excitation underlying sensation itself; it is, on the contrary, a process of inhibition proceeding from the apperception centre of the cortex. We must conclude, therefore, that the ru[illegible]rication of clearness with the mental elements was more or less accidental. It seems to have been made, primarily, for the sake of simplicity of classification.

In defining the relation of clearness to apperception, Wundt implies that apperception is the sole cause of changes in clearness. But apperception is itself dependent upon various external and internal conditions, so that we must ask more explicitly for the ultimate conditions of clearness and of its opposite, unclearness or *obscurity*. For even when we have learned that apperception clears up an obscure quality by bringing it to the focus of consciousness, we must still enquire why the quality was obscure in the first place and why it is more obscure at one time than at another. A partial answer to these questions is to be found in the statement [5] that clearness is conditioned by two factors; the

[1] *Logik*, Bd. ii., Abth. 2 (1895), p. 286.
[2] *Ibid.*, p. 196 ff. [3] *Grundzüge*, 4th ed., ii., 272.
[4] *Ibid.*, 5th ed., i., 323. [5] *Ibid.*, 4th ed., ii., 271.

intensity of the apperceived sensation and the acuity of apperception. Apperception is acute, it must be added, when the strain of attention corresponds to the intensity of the impression. So that degree of intensity and expectation—*i.e.*, accommodation of attention —are the two final conditions of clearness. There is, however, a third condition that comes to light in Wundt's account of fusion. The overtones of the simple clang, *e.g.*, are obscured (*verdunkelt*) by fusion. They remain, nevertheless, in consciousness.[1] Their darkening means a failure to find the focus of attention ; it arises both from the small intensity of the tones and from their frequent association. Association is, then, a possible condition of clearness or more—negatively—of obscurity.

Wundt's explanation of fusion—in terms of apperception—is highly unsatisfactory. Grave objections may be brought against both his factors. Against the first it should be urged that tones may be equally intensive and still be less clear in combination than in isolation ; and, against the second, that the principle of frequency of association has been shown to be inadequate.[2] Moreover, anticipatory attention, although it does, without doubt, increase the clearness of mental contents, yields now a greater, now a lesser, increment of clearness, according to the nature of the processes which enter into the state of attention. We must conclude, therefore, that Wundt's three factors — intensity, expectant attention and association—do not exhaust the conditions of variations in clearness.

Ebbinghaus uses the term ' vividness ' or ' vivacity ' (*Lebhaftigkeit*) where Wundt uses ' clearness '. But vividness is, for Ebbinghaus, also a distinguishing mark between sensations and ideas. The idea is not only weaker than the sensation ; it is paler, more incorporeal, more shadowy.[3] There are, moreover, among ideas themselves, various degrees of liveliness. Galton's classification of imagery, *e.g.*, is a classification in terms of liveliness or vivacity.

In order to an understanding of the relation obtaining between vivacity and attention, we must note our author's close association of the terms ' fusion,' ' inhibition ' and ' attention '. As Wundt relates fusion and apperception, so does Ebbinghaus relate fusion and attention. For the latter writer, a fusion is a ' total-impression ' which is not analysed by the attention. Not fusion alone, but also attention and inhibition follow from the general law of the limitations of consciousness. As a result of a psychophysical process of inhibition among simultaneous excitations, parts of consciousness stand out in vivid relief (*lebhaftes Hervortreten*), while others are suppressed and appear only as an unanalysed background to the vivid and analysed contents. This background is a fused mass, without parts.[4] It is, therefore, impossible for Ebbinghaus

[1] *Grundzüge*, 5th ed., ii., 121.

[2] See C. Stumpf, *Tonpsychologie*, ii., 208 ff.

[3] *Psychologie*, i., 524. [4] *Ibid.*, p. 573.

to concede either clearness or vividness to the members of a fusion. Clearness can be predicated only of ideas that are analysed out of the 'total-impression'; *i.e.*, ideas that are attended to. All other contents are so completely inhibited as to lose their individual quality.

When we look more closely at Ebbinghaus' doctrine of attention, we find ample justification for our statement that his 'vivacity' is practically identical with Wundt's 'clearness'. Mental contents, says Ebbinghaus, suffer a twofold change upon entering the state of attention; they impress themselves upon the mind with greater energy—they become more lively, they stand out from other contents—and their various attributes and parts appear in greater distinctness and in greater isolation. That is to say; in attention, processes are more vivid (or clear) and more distinct. It follows that the determinants of attention—intensity, feeling-tone, repetition and the presence of similar processes (according to Ebbinghaus)—are also the determinants of clearness.

Münsterberg distinguishes between clearness and independence—he uses synonymously the terms *Klarheit*, *Deutlichkeit* and *Selbständigkeit* — and vividness (*Lebhaftigkeit*).[1] Clearness is one of the characteristics of 'content-qualities'; the other two being 'kind' and 'strength'. Content-qualities include 'material-qualities' and 'form-qualities'. Clearness of material-qualities is illustrated by a fusion of tones. A tone is clearer, more independent, when sounded with its seventh than when sounded with its octave. Similarly, form-qualities fuse among themselves and thereby alter their independence (*Gestaltselbständigkeit*). Value-qualities, on the other hand, are not capable of the threefold variation—kind, strength and independence—but are classified as vividness-values, feeling-values, direction-values, etc. These values are the mental representatives of the relation of the subject to the object. Degree of vividness corresponds, now, to the act of attention. It is identical neither with clearness nor with strength. An impression that is weak and unclear may become more vivid under attention without changing either its clearness or its intensity.[2]

Although vividness, independence and intensity are very closely related in Münsterberg's system, we find, in the section devoted to the *Urelemente*,[3] that the last two are derivatives of vividness. The primitive elements possess vividness but not intensity or independence. Both of these latter characteristics arise under fusion of the elements by their interaction and mutual inhibition. The clearness (independence) of a sensation depends upon the vividness of its primitive elements; for, the less vivid elements suffer suppression, inhibition, extinction, in the presence of other, more vivid, elements. It is this loss in *Urelemente*, then, that makes the difference between a sensation in fusion and the same sensation—*i.e.*, the same 'kind,' *Art*—in isolation. Clearness depends, therefore, upon the vivid-

[1] *Psychologie*, i., 285. [2] *Ibid.*, p. 292. [3] *Ibid.*, p. 369 ff.

ness of the ultimate elements, and vividness corresponds to an act of the attention. Thus we come, by way of the circuitous path of hypothesis, back to Wundt's position. This path is not wanting in its own peculiar difficulties. In the first place, it is not made entirely plain how degree of clearness can be independent of attention—as Münsterberg contends—since clearness is a function of vividness and vividness derives from attention. Again, if the primitive elements inhibit each other, in the fusion of sensations, what shall be said of their mutual relations within one and the same sensation? Do they inhibit each other here also? There is no help for it. Since they are no more and no less similar in different sensations than in a single sensation, and since there is no 'peculiar affinity' in fusion, they must suppress one another under all circumstances. But from this it follows that the sensation is itself a product of fusion and is, therefore, entitled to a clearness attribute quite as much when considered by itself as when considered as a member of a complex. This is not in accord with Münsterberg's statement[1] that independence, clearness, becomes 'complete' when the sensation stands by itself. Once more; when we have traced clearness to a single sensation—as we are bound to do if we accept the author's assumption of the interaction of the primitive elements—what becomes of the distinction between vividness and clearness? It disappears. Clearness is seen to be merely a collective vividness; the vividness of a group of vividnesses; the product of their internecine warfare. Each element either maintains itself or is annihilated according to its peculiar vividness, and the surviving members contribute to the clearness of the whole.

I have taken seriously Münsterberg's speculations on the *Urelemente* only because they promised to furnish some clue to the relation of our two terms, clearness and vividness. Quite apart from obvious objections to the major hypothesis on which they rest, the speculations raise more difficulties than they settle.

Kuelpe uses interchangeably the words 'clearness' and 'distinctness'. He means by them "simply the relatively most favourable apprehension of an impression, as expressed in a relative maximum of its discriminability from other contents and of the liability of reproduction of its attributes".[2] This description of clearness is valuable because it suggests the possibility of quantitative determination of clearness through its effect upon the discriminating sensibility. Kuelpe adds, moreover, a criterion for what may be called the lower limit of unclearness or obscurity. Part-contents may be present in a total-impression, he contends, though they are unnoticed.[3] They *are* present if the total-impression suffers

[1] *Psychologie*, p. 285.

[2] *Outlines of Psychology*, 424-425; *cf. Zeitschr. für Philos.*, etc., cx. (1897), 34.

[3] *Cf.* H. Eckener (*Philos. Stud.*, viii., 365) for experimental instances of the influence upon consciousness of obscure ideas.

change when the part-contents are subtracted from or added to the experience.[1]

For Stumpf,[2] increase in distinctness is the prime result of analysis, and analysis is the essential function of attention. Whatever affects analysis—*e.g.*, the degree of fusion of simultaneous tones—contributes also to the distinctness or the indistinctness of perception.

Clearness, in James's psychology, is a product of "intellectual discrimination". It means—so far as attention produces it—"distinction from other things and internal analysis or subdivision".[3] It is, however, necessary to notice that James does not conceive analysis as a mere process of clarification. It works a qualitative as well as a quantitative change in consciousness. An analysed consciousness is different in *kind*, not merely different in degree, from an unanalysed consciousness. It follows that one cannot speak of *degrees* of clearness. A consciousness is just itself; if it becomes more vivid or more clear or more distinct, it is *ipso facto* a new consciousness. One consciousness may represent an *object* more fully or more clearly than another consciousness; but a single consciousness cannot be, at one time, clear and, at another, obscure. The same view is represented by Lipps[4] and later by Stout,[5] while its truth is denied by Wundt, Helmholtz, Lotze, Kuelpe, Titchener, Stumpf, Münsterberg and Ebbinghaus. The contradiction in the two points of view may be overcome if we admit, on the one hand, that the *state* or *condition* of consciousness *does* change with varying degrees of clearness and obscurity, and, on the other hand, that, as a rule, the clear consciousness is more complex than the unclear simply because one of the concomitants of an increase in clearness is a heightened reproductivity, an arousal of new associations. But, if we examine any *particular* process or group of processes, we observe no qualitative change that is coincident with alteration in clearness.

Let us see, now, what the literature nets us. Wundt distinguishes clearness and distinctness as mental magnitudes. He also attempts to carry over the distinction to his treatment of attention and apperception. Degree of clearness is, he says, the prominence of a particular quality; distinctness is its separateness from other qualities.[6] Clearness refers to the constitution of an idea itself; distinctness to its relation to other ideas.[7] But, in

[1] By removal of 'part-contents,' Kuelpe can only mean what Helmholtz had said more explicitly before him; namely, the suppression of a part of the *external cause* or *condition* of the total-impression. Weak overtones would be in consciousness, *e.g.*, when, and so long as, the removal of their stimuli produced an effect upon consciousness.

[2] *Tonpsychologie*, ii., 278, 287-288. [3] *Psychology*, i., 426.

[4] *Grundtatsachen des Seelenlebens* (1883), 31-32, 42-44.

[5] *Analytic Psychology* (1896), i., 246 f. [6] *Logik*, p. 286.

[7] *Grundzüge*, 4th ed., ii., 271. Sully makes a similar distinction, *Human Mind*, i., 275.

another place,[1] increase in clearness is said to be—as against increase in intensity—a change in the relation between contents. One part of consciousness is apprehended as clearer than another which, in comparison, appears to be obscured. This looks like a contradiction; but what Wundt means is that, in becoming clear, conscious qualities come to their full rights through the positive inhibition of rivals. The physiology of this process, he has given in some detail. Inhibition and the resulting enhancement of clearness are the essential features of apperception. Changes in distinctness seem, on the other hand, to be a more or less fortuitous accompaniment of apperception. They consist, it is evident, in the sharpening of outlines, in the setting off of object from object.

Barring differences in terminology, Ebbinghaus' account of clearness is not essentially different from Wundt's. He gives as the conditions of clearness intensity, feeling-tone, repetition and the presence of similar processes; against Wundt's intensity, expectation and association. Repetition comes practically to the same thing as Wundt's association and 'the presence of similar processes' coincides, at least roughly, with his expectation. This leaves us with one new factor, feeling-tone. Münsterberg dismisses the difference between clearness and distinctness, both of which he identifies with independence as a characteristic of content-qualities. Independence rests, first, upon the nature of qualities brought together in consciousness, but, finally, upon vividness, which is a function of the attention. Münsterberg's most important contribution to the subject is his emphasis upon the relation of clearness to the qualitative nature of mental contents. Kuelpe suggests a possible means of measuring clearness and also a criterion for the lower limit of obscurity. We are indebted to Stumpf for the important statement that whatever affects analysis affects clearness (he uses the term distinctness) and also for a thorough investigation of the conditions, central and peripheral, underlying analysis in the special province of auditory complexes. Finally, the contention—sustained by Lipps, James and Stout—that degrees of clearness do not exist serves as a caution against the confusion of the broadening and deepening of consciousness in the attentive state with alteration of the clearness of specific contents.

The literature suggests many questions regarding the relation of clearness to attention, to sensation, to fusion, to inhibition, etc. Only two of these questions need be considered here. They refer to the relation which clearness bears to the various types of mental complexes, and to the attributive nature of clearness.

Concerning the relation of clearness to mental complexes, it is instructive to notice that both the terms 'clearness' and 'distinctness' were suggested by visual perception. We see *clearly* when

[1] *Grundzüge*, 5th ed., i., 323.

the eyes are properly adjusted and when objects reflect sufficient light; we see *distinctly* when we are in a condition accurately to distinguish various objects.[1] Distinctness, at least in visual space perception, means, in the first place, sharpness of contour. Eliminate borders, lines of demarcation, and the distinctness of adjacent objects disappears. The colours of the spectrum are clear, but they are not distinct—except as they are distinct from the surrounding white light. They merge gradually into each other.[2] This holds, in general, for spatial perceptions. But distinctness is also the obverse side of the unity of a mental complex. The compactness, the solidarity of a group of mental processes, makes it a distinct whole. A mass of dissonant tones is not, as a mass, distinct. The individual tones may be clear. They may 'stand out' from each other; but there is no distinctness of the mass. The essential elements in a puzzle-picture may be clear, and each by itself may be distinct—it is, at least usually, sharply defined—but there is no distinctness of the whole until the picture is seen, until it grows together under attention. Here, distinctness is centrally initiated. The same thing happens if we 'hear-out' a 'puzzle-chord' from our dissonant mass of sound. The chord becomes distinct, not because its borders are defined—tones have only temporal borders—but because it is now an unitary whole, with an individuality of its own.

With these instances in mind, we should be able to make some general statement regarding the distinctness and the clearness of contents in the three typical and fundamental formations of mental complexes. In the first type, which includes what we may call *extensive* formations or 'incorporations,'[3] qualities are arranged in a spatial pattern. It is evident here that both moments of distinctness—definition and unitariness—come into play. The consciousness that conveys the perception of a picture or of a tree exhibits more or less sharply defined qualitative gradations and, at the same time, an unmistakable unity, both in its structure and in its capacity for arousing associations. In the second type, the *temporal* incorporation, definition and unity are also to be found. Definition

[1] Wundt, *Grundzüge*, 4th ed., ii., 271.

[2] I assume that adjacent colour-tones are seen simultaneously, not successively.

[3] See *Amer. Journal of Psych.*, xiii., 1902, 269 ff. The threefold classification of the text corresponds in general with Wundt's division into 'intensive' and 'extensive' ideas (*op. cit.*, 5th ed., ii., 374) and with Kuelpe's distinction between 'fusion' and 'colligation' *Psych.*, 276 ff.. I have chosen the term 'incorporation' as a compromise between Meinong's 'consolidation' and Kuelpe's terms. The consolidation concept implies an active process of synthesis and a too radical metamorphosis of the analytic elements of consciousness; 'fusion' is too equivocal, it means too many things; 'colligation' is too colourless and applies rather to the juxtaposition of objects than to the synthesis of mental processes, while 'fusion' and 'colligation' taken together fail to express the common bond between all the simple types of connection.

is the definition of parts in sequence. The parts either overlap or they are sharply set off from one another; and they are either bound together—as in melodic or rhythmic groups—or they fall apart—as in a succession of tones chosen at random. The *qualitative* or third type of incorporation contains neither spatial nor temporal definition. The qualities that form the complex possess the same temporal and spatial coefficients. They neither stand side by side nor before and after each other. They have, then, no apposed borders and, therefore, no definition. They possess, instead, interpenetration. But, though the first moment in distinctness is lacking, the second is not. Qualitative incorporations may be as unitary as either of the other types. An auditory fusion, a taste-smell complex, a tactual formation, possesses a compactness, a wholeness, that sets it off and makes it a distinct unit. It must be observed, however, that the distinctness of qualitative incorporations is more limited than the distinctness of the other types; for the element of interpenetration is always opposed to distinctness. However unitary a qualitative incorporation may be, it tends to merge into other like incorporations. Note fuses with note, chord with chord, harmony with harmony.

It follows from our discussion that, within the field of extensive and temporal incorporations, distinctness is predicable alike of related elements—*e.g.*, adjacent colours or successive pressures—and of related groups—*e.g.*, figures or melodic phrases. Unity belongs, of course, only to groups; but definition is observable as well in the 'boundaries' of simple elements as in the apposition of composite masses.

Let us turn now to clearness. As we found distinctness to be a function of definition and unity, so we shall find clearness to be a function of interpenetration and unity. Definition, which is characteristic of extensive and temporal incorporations, does not seem to affect clearness. Processes may overlap or they may merge gradually into one another and, nevertheless, remain clear, though not distinct. As soon, however, as interpenetration is substituted for lack of definition, clearness is, at once, altered. A tone penetrated by its octave suffers a decided loss in clearness, penetrated by its fifth or major third, it loses less and, by its minor seventh, still less. A voice is clear when its tonal quality is pure, when it is not obscured by noises, or when, by reason of its intensity, its clang-colour or its frequent change of pitch, it stands out from other noises or from accompanying instruments. A colour, likewise, is obscure when it is overlaid by a lustre or a reflection or by another colour with which it does not perfectly 'mix'.

Now what may be said of the clearness of an incorporation as a whole? We found that we could speak of the distinctness of extensive and temporal incorporations, when set in juxtaposition, but that the distinctness of qualitative incorporations is infringed by the fusion of complex with complex. But just where distinctness tends to disappear, clearness appears in all degrees, from maximal

obscurity to maximal obtrusiveness. One chord, *e.g.*, is more or less clear, more or less obscure, according as it interpenetrates with a second or a third chord. We may speak, likewise, of the degree of clearness of extensive and temporal incorporations, considered as units; although these incorporations are lacking in interpenetration. The clearness of a spatial figure or of a melodic phrase may either diminish or increase when set over against another figure or another phrase: diminish when the two figures or the two phrases combine into a larger group; increase when they give rise to antithesis or contrast. In the one case, the new unity retires the minor incorporations, renders them more obscure; in the other, the minor incorporations undergo mutual enhancement and clarification.

I have taken account thus far of the relation of clearness and distinctness only to those mental groups which involve but one type of incorporation. But even if we were to extend our inquiry to complexes which include different types, we should find no necessity for altering our concepts. Let us examine an instance.[1] Suppose one is watching a ringing bell; there appear in consciousness both auditory and visual elements. The auditory elements enter both into qualitative groups (clangs) and temporal groups (rhymical units). The visual elements, likewise, form both an extensive group (contiguous qualities) and temporal groups (successive qualities). Now these four forms of grouping combine to produce an incorporation of the second degree, of whose constituent members we can predicate both clearness and distinctness. The factors that we have found to characterise these two attributes possess exactly the same significance in this heterogeneous complex as in our previous homogeneous complexes. The unity of the several groups is still maintained—although a new unity of-the-whole supervenes—and definition and interpenetration remain as in the simpler incorporations.

We may summarise as follows our conclusions respecting the clearness and distinctness of our three fundamental incorporations. The essential elements of distinctness are definition and unity. Definition exists both within and between extensive and temporal incorporations. Unity may be predicated of all three types alike. A single qualitative incorporation presents a degree of distinctness by virtue of its unitary character; but between group and group there is, to speak strictly, no distinctness—only clearness. The two elements of clearness are unity and, in its negative aspect, interpenetration. Unity and, therefore, clearness characterise all three kinds of incorporation.

The objection may be raised that since clearness and distinctness

[1] In selecting instances from perception, I have not meant to raise the question of the relation of consciousness to the world of objects. The concepts that I have introduced apply only to conscious contents and are not offered as an explanation of the 'external reference' of perception.

coincide on the side of unity, it is not worth while to distinguish the two concepts. Doubtless we do in every-day life use the terms interchangeably. Nevertheless, they adapt themselves easily and naturally to the important—the essential—difference that obtains between extensive and temporal incorporations, on the one hand, and qualitative incorporations, on the other. This is the writer's justification for maintaining the distinction.

In setting off definition and interpenetration (or, more positively, 'qualitative aloofness') from unity and variety, we have distinguished roughly between the peripheral and external and the central and internal conditions of clearness and distinctness. Definition and aloofness depend, primarily, upon the spatial, temporal and qualitative peculiarities of stimulus; unity and variety, primarily, upon central dispositions and the resulting associations, feelings and habitual reactions. Most discussions have dwelt upon these last-named factors—under the head of attention—to the neglect of the equally important external and peripheral conditions.

One of our two questions remains to be answered. Is clearness an attribute or property of sensations? It is customary to answer the question in the negative,[1] though both Wundt and Münsterberg recognise clearness as one of the 'dimensions' in which sensations move. I do not see how we can avoid the conclusion that a tone or a colour or a pressure possesses a degree of clearness in precisely the same way that it possesses quality and intensity. One and the same sensation is now clear, now obscure; just as it is now weak and now strong.

Let us examine some of the objections to this view. The first objection—that alteration of clearness involves necessarily qualitative change—we have already disposed of. It has not been shown that a simple quality changes its nature when it becomes more clear—however much attention alter the general kaleidoscopic features of consciousness. A more serious objection is that degree of clearness depends upon the juxtaposition of mental elements and upon attention. But the same objection might be urged against intensity, as an attribute of sensation. The intensity of a tone alters when other tonal sensations are added to consciousness—it may even sink to zero—and it alters—at least if it is weak—with attention. Even quality is changed (*e.g.*, simultaneous brightness contrast) by the presence of other qualities.[2] A third possible objection to considering clearness an attribute would urge that a mental complex has a clearness of its own, a mass-clearness, while every element in the complex retains its own quality and intensity. But this depends upon analysis. If there is no analysis, neither is there a plurality

[1] A notable exception is the view of E. B. Titchener (*Philos. Rev.*, vii., 462) that clearness is an attribute of sensation. M. W. Calkins ranks clearness with intensity, extensity, etc., as an 'element' of consciousness (*Introduction to Psychology* (1901), 137 ff.).

[2] *Cf.* M. F. Washburn, *Philos. Rev.*, xi., 457.

of separate qualities and intensities; and just as soon as analysis brings forth qualities and intensities it brings forth also clearnesses. Each part, as soon as it is a part, stands in its own proper degees of clearness or obscurity. We may conclude, therefore, that—lacking more positive and more valid objections to the position—clearness is to be ranked with quality and intensity as a characteristic or the simple sensation.

VI.—CRITICAL NOTICES.

Principia Ethica. By George Edward Moore, Fellow of Trin. Coll., Cambridge. Cambridge: University Press, 1903.

This is a book which leaves no doubt of its author's acuteness, boldness and earnestness. In form it is singularly clear and careful, and even an Idealist whom it has not converted will admit that it is highly provocative of thought, and on more than one point of importance propounds true doctrine with remarkable vigour. Beyond a doubt Mr. Moore has unusual gifts as a critic of philosophy; whether he has here shown himself capable of dealing positively with the main burden of a great science is perhaps open to doubt.

"I have tried in this book to distinguish clearly two kinds of question, which moral philosophers have always professed to answer, but which, as I have tried to show, they have almost always confused both with one another and with other questions. These two questions may be expressed, the first in the form: What kind of things ought to exist for their own sakes? the second in the form: What kind of actions ought we to perform? I have tried to show exactly what it is that we ask about a thing, when we ask whether it ought to exist for its own sake, is good in itself, or has intrinsic value; and exactly what it is that we ask about an action, when we ask whether we ought to do it, whether it is a right action or a duty" (Preface, vii.-viii.).

Under further examination, the first of these questions is subdivided; and the three problems thus resulting form the ground-plan of the book.

The first of these problems, "What is the meaning of good?"—the adjective good—is the subject of the first chapter. In dealing with it Mr. Moore advances his conception of "the naturalistic fallacy," which I think he would admit to be the primary contention of his work. To this we shall return directly. On the basis of this conception he then proceeds to discuss certain proposed answers to the second problem, *i.e.* What things are good in themselves? by formulating in successive chapters a hostile criticism of Naturalism (mainly Herbert Spencer's views), Hedonism (Mill and Sidgwick), and Metaphysical Ethics (illustrated mainly from Kant and Green). This takes us rather more than

halfway through the book. We now arrive at the *second* question of the Preface, being the third problem of Ethics as developed in the body of the work, *viz.*, What ought we to do? the author's main point being that answers to it are causal propositions dealing with the means to good, and are strictly speaking impossible to establish. There is therefore nothing to discuss but how far it can be shown that rules propounded by Common Sense are likely to be generally useful; and the ethical primacy of duty and virtue disappear, both being regarded as not necessarily more than means to good, although virtue is capable in some sense of intrinsic value. In the final chapter, entitled the Ideal, he returns to the second problem of Ethics, "What *things* are good or ends in themselves?" —the treatment of which in the central chapters has as yet only produced the denial that pleasure is the sole good—and attempts a positive answer to it. The author insists on his method for answering this question, which is the method of isolation. We must ask what things are such, that if they existed by themselves in absolute isolation we should yet judge their existence to be valuable. The difficulty of such a test, except on Mr. Moore's peculiar principles, would be that everything—say love of beauty —would imply so much beyond itself that the test would seem to pronounce it valueless if really taken *per se*. The conclusion is that by far the most valuable things which we know and can imagine are certain states of consciousness, which may be rightly described as the pleasures of human intercourse and the enjoyment of beautiful objects. And this has been fairly recognised. "What has *not* been recognised is that it"—substantially the proposition contained in the last sentence but one—"is the ultimate and fundamental truth of Moral Philosophy. That it is only for the sake of these things—in order that as much of them as possible may at some time exist—that any one can be justified in performing any public or private duty; that they are the *raison d'être* of virtue; that it is they—these complex wholes *themselves*, and not any constituent or characteristic of them—that form the rational ultimate end of human action and the sole criterion of social progress: these appear to be truths which have been generally overlooked." It is well perhaps to raise these questions in order to make sure that we have not forgotten what virtue means; but I cannot think that against a vital apprehension of what virtue means they have any purchase.

Before approaching the particular arguments a general observation forces itself upon me. The book indicates throughout how strongly the author has been affected by Sidgwick's views.[1] Especially in the general view of Ethics, as shown for example in the crucial point of the acceptance of Casuistry, he follows Sidgwick implicitly. But his revolt against the ascription of

[1] Here I have in a great degree followed Mr. Bradley's pamphlet, *Mr. Sidgwick's Hedonism*, 1877.

exclusive intrinsic value to pleasure—a revolt in which I heartily sympathise with him—cuts away the basis of Sidgwick's general conception. Taking pleasure as the end, we had at least an appearance of a definite abstract principle on which to base the moral code. Pleasure being abandoned, the way indeed seems open to a serious theory of what makes life worth living, which would form the concrete content of Ethical Science. But from the point of view which Mr. Moore inherits there must be no such concrete content, or the general conception vanishes. It is impossible to regard moral science as the analysis of life with reference to its concrete content, and at the same time to conceive it as a code of rules applying to all possible actions. In taking account of the individual as a whole, Ethics is debarred from prescribing rules for his actions. Nothing can do this except an individual who includes him, *i.e.* practically, himself or God. A code of rules can only apply to him if, as Hume would say, we adhere to a general point of view—the colour of his hair, the amount of pleasure he is to have, the need of keeping him in order. Mr. Moore treats the difference between Ethics and Casuistry as one of degree of generality. Casuistry aims at saying what actions would be good wherever they occur. It is the "goal of Ethics"—the elaboration of such judgments as constitute Aristotle's list of virtues,—in a word, the completion of the code. There is no difference in kind, he urges, between more and less general judgments, until you come to "*This* action is good," and such a judgment has no place either in Ethics or Casuistry. All this, surely, turns upon the conviction that good is a limited and separable quality in things or actions, like solubility or redness, and thus relatively, if not ultimately, isolable. Mr. Moore, I think, has a doctrine of this kind about truth as a property of propositions, which illustrates his position about good. But good, he may reply, *is* relatively isolable, or how could it have a distinguishable meaning? It cannot be simply all that there is in or about a thing or act. That is true; but it may involve the characteristic of wholeness, and this would be to an idealist the point of view which marks off the philosophical from the natural sciences. I am aware that Mr. Moore does not admit it, and I only point out how fundamental in his doctrine of Ethics this denial is.

It is vital to him then to exclude all philosophical theory of good. Good must be strictly limited. It must be separate from the theory of life, if there is such a theory at all. It must be as simple as pleasure, though, by a noble instinct, the author assigns to pleasure *per se* but low rank as a good.

Now by the doctrine of the Naturalistic fallacy the author is able to exclude all theory of good—all propositions which define the nature of good—what is conveyed by the adjective good as distinct from the substantive (or substantives?) to which it is attached as predicate.

This (or these) it should be mentioned, to which the adjective

good must always truly apply, will for the author constitute "*the* good," and "the whole of this, whatever it is," being something different from the adjective itself, will be "our definition of *the* good". So "*the* good" can be defined, though "good" cannot; but the definition thus conceived must primarily it would seem be an enumeration, or supposing a single substantive, a designation. Then further, "this something will have other adjectives, besides 'good,' that will apply to it. It may be full of pleasure, for example; it may be intelligent; and if these two adjectives are really part of its definition, then it will certainly be true that pleasure and intelligence are good."

But such propositions Mr. Moore insists, and, I imagine, rightly insists, can never amount to a definition of good. It is his point that "*the* good" is definable but "good" is not definable. What we have then, as I understand, is a designation (or enumeration) of the substantive (or substantives) which constitute the good, and this is "our definition of *the* good". Then there may be adjectives, besides good, such as "intelligent," which apply to this substantive, "and if these adjectives are really part of its definition, then it will certainly be true that—intelligence is good". I think there is a confusion here for which I am not responsible. The definition of "*the* good" was clearly at first the assignment of a substantive or substantives to which the predicate good always applies. Now it is suggested that certain *adjectives* may form part of the definition of the good. I am not sure whether (α) substantives called good were to be designated or enumerated; the total of these were to be the "definition" of *the* good; their common and peculiar qualities were to be generalised and were to be the secondary (and true) definition of the good. Or (β) whether, though the substantival character of the good is sharply contrasted with the adjective good in the first statement, the real point is that the substantive "*the* good" was from the first to be designated *through adjectives*—it is spoken of as "that which is good,"—in which case we have from the first a generalised adjectival definition of "the good," without going round through an identification, such as Mr. Moore attempts in his closing chapter, of the separate things which merit the predicate "good". The point, I think, is important; in either case indeed a general adjectival definition of "the good," which is to remain wholly unsupported by, and uncontributory to, any definition of "good," is hard enough to believe in, and seems strictly quite arbitrary. But if we have never made the circuit at all through the identification of substantives or the substantive bearing the predicate good, and generalisation of adjectives therefrom, then it does seem that our adjectival definition of "that which is good" can have no basis at all, if not an unacknowledged theory of the nature of "good". But as this is strongly denied by the author, the idealist cannot be content with what otherwise might have been practically enough for him, the permission "to discuss what

are those other properties belonging to all things which are good". For the connexion being cut between them and the nature of good, the attempt could lead to nothing but an arbitrary enumeration, and any serious inquiry into what makes life worth living would be wholly precluded.

That "good" is indefinable, however, and that the "things which are good" (a favourite expression of Mr. Moore's, singularly irritating to an Idealist) can only be known by Intuition, is Mr. Moore's primary contention. No relevant evidence can be adduced in answer to the question "What things ought to exist for their own sake?" To attempt a definition of good, or what I should call a serious theory of what makes life worth living, is, for him, to commit the Naturalistic Fallacy. This conception we must now try to understand.

The author explains that definition in the only important sense means analysing a whole into distinguishable parts. These parts we can "substitute for it in our minds when thinking about it," *e.g.* the parts of a horse; four legs, head, heart, etc. "We could think how a horse differed from a donkey just as well, just as truly, in this way as now we do, only not so easily; but there is nothing whatsoever which we could so substitute for good; and that is what I mean when I say that good is indefinable."

The point is that any other determination of subject by predicate than analysis into distinguishable parts is denied to be possible for the definitory judgment; and on this basis it is moreover assumed that the aim of definition is *ipso facto* the assignment of a P which is capable of being substituted for an S without loss of meaning. S therefore disappears. It is implied we must suppose, or repeated, in P, or may be abandoned without loss. If you have in mind all the parts of a horse (P) the idea "horse" (S) can be dispensed with. You can work with P alone, and to make such working possible is the nature of true definition. The theory I think is quite false, though in simple cases its falsehood is negligible. It is also in contradiction with Mr. Moore's own view of the judgment, so far as controversially developed farther on. But we are concerned with the use made of it, which is this. The Naturalistic Fallacy is committed when you offer to define any unanalysable S. You are then simply saying that one thing is another, putting something else, often a "natural object," *in place of* the term to be defined. Thus if you offer to "define" good, you are aiming at supplying a P (say "object of desire" or "pleasure") which can be substituted for S (good). You are suggesting that the properties mentioned in your definitory predicates are "not other but absolutely and entirely the same as goodness". In a word, as Goodness cannot be analysed into parts, to try to define it is to sweep it away and put something else in its place. Argument therefore becomes impossible. Different philosophers start from different definitions, just as if one man were to define a triangle as a straight line, and another as a circle, in the sense

that the conception of triangle is surrendered, and replaced in the one case by straight line, in the other by circle. This disabling effect imputed to "definition" is very quaint; for if a man said in an ordinary judgment that a triangle was a circle, I imagine he could soon be disposed of.

Therefore, as I understand the argument, every proposition which aims at determining the nature of S by P being taken as definitory, and definition being taken to imply substitution (which, though never theoretically adequate, *is* yet roughly workable in case of analysis into parts), we get the doctrine that every such proposition is in effect a substitutive definition, destroying the original S and substituting for it an arbitrary P. This result being meaningless so far as the original S is concerned, we are led to the conclusion that no S, unanalysable into distinct parts, can be further determined in respect of its nature by scientific judgment; in a word, no idea which can be regarded as unique—which I imagine every idea is possible for—can enter into a system of knowledge. This is manifestly false even in Mr. Moore's example of the horse. When we think of it through its parts, of course we think of them as parts of a horse, the point of view contributed by S. It is true that roughly we may take P as a substitute for S, but strictly it would be incomplete apart from the single point of view of the whole given in S and further determined in the analysis P. More strangely still, Mr. Moore pleads almost pathetically for the right view, which I should imagine every one accepts as obvious, on pages 13 and 14, having nothing to oppose him but his own extraordinary idea that a judgment is not a judgment when it is a definition. In this energetic plea he actually maintains that it would be absolutely meaningless to say that oranges were yellow unless yellow were absolutely indefinable. He means, surely, unless yellow were unique and *different* from an orange. Is it meaningless to say that an orange is round, or is round indefinable?

The outcome of the whole doctrine is just this, that good having, like every distinguishable thing, a single aspect, which is peculiar and unique in experience, can have no propositions of scientific value made about it at all. The determination of one aspect by "others," which for an Idealist is the obvious foundation of all science, and even for Mr. Moore presents itself as the natural interpretation of every-day judgments, ceases to be possible when we come to definition, *i.e.*, as I understand, to experience of what makes a thing what it is. Yellow, for instance, is indefinable; you can say "other" things about it, but you cannot define *it*. Knowledge therefore we must suppose cannot deal with it, and it cannot be, strictly, anything more for one perception or intelligence than for another. If Ruskin says yellow is the foundation of all good colour, this we must suppose is not a judgment which can be developed out of its nature, but somehow extraneous, and not affecting it. Good is like yellow. It is unique, and simple. It cannot

be determined or its nature developed by any proposition about what makes life worth living.

Then the work is done. A false doctrine of judgment, ultimately I presume a doctrine of non-essentiality of relations, maintained in face of the author's own better insight, has effectually gagged the organ of ethical science. At the point where the main argument of the Republic and Philebus would be approached, that is, at the definition of good as the object of desire, the doctrine of the naturalistic fallacy is invoked to bar the road by showing that *about good* nothing significant can be said at all.

Yet the proposition that good is the object of desire seems to me to be significant, though I am far from maintaining that it is adequate. It appears to have a meaning as an ordinary synthetic judgment, and it is hard to suppose that to call it a definition can destroy its sense. We understand by it that good, a feature in experience *prima facie* unique and indefinite, as every feature in experience must be until more fully and determinately experienced, is asserted to display its nature more explicitly in certain further relations. A sentence is indeed cited from Green to show that he thought of good as having no universal character except the defining predicate—not even, it is urged, the feature of goodness. This is just the common way of speaking which Mr. Moore himself employs when he speaks as if the parts of a horse could be substituted for the subject "horse" without the knowledge that that of which they are parts is a horse. We presuppose the synthetic nature of judgment, and take S as read into P and qualifying it, as in truth it does.

The idea of the Naturalistic Fallacy is applied in the criticism of Spencer's Evolutionism, of Hedonism and of Metaphysical Ethics —the fallacy in the last case being taken as the same in kind, though the thing identified with the good is not a natural object. I will comment upon its application in the latter case. Metaphysical Ethics are characterised by asserting that that which would be perfectly good has some characteristic possessed by a supersensible reality. Besides saying that in fact this is so, which might be true, they imply "that this ethical proposition *follows* from some proposition which is metaphysical; that the question 'What is real?' has some logical bearing upon the question 'What is good?' And this is to commit the Naturalistic Fallacy." This point the author takes as proved in chapter i. (in the argument above referred to) and in the later discussion he confines himself to setting out the reason of the error, and other objections to the bearing of Metaphysic upon Ethics, *e.g.*, the difficulty about realising in time what is itself eternal. Now what I object to is that by this method the central reasonings of great thinkers are never allowed to be referred to. For instance, let us take the connexion of the real and the good. Plato has argued in a way which I may represent roughly (for every one knows it) as follows. Nothing can have a nature, can determin-

ately *be*—the difference between being and existence on which Mr. Moore insists is wholly beside the point—except in so far as it partakes of a characteristic which may be called logical stability. This has primarily nothing to do with being thought; it belongs to being as such. This characteristic Plato connects with the nature of good. For good, whatever else it may be, is something which *is*, in the highest sense of logical stability, and therefore, if such as to be affirmed, possessed and enjoyed, is so in the highest degree. The connecting link between it and reality is logical stability. It is an error to confuse this with the bare fact of existing in or of being possessed by a consciousness. Consciousness may be the only thing which has logical stability, but that comes later in the inference. The argument can be pushed much farther, through all the sides of experience, but for an illustration this is enough. Now Plato's views, like any other, are of course open to be controverted and rejected. But to rule out of consideration so familiar and so important an argument upon an interpretation (even if not a misinterpretation) of the nature of the definitory judgment, seems to me I confess an abuse of ingenuity. And I do not believe that any terms are undefinable, except by the accident of our ignorance.

There is undoubtedly something attractive and stimulating in the novelty of Mr. Moore's attack; there is also something genuinely high-minded in his devotion to his subject, in the tendency of his ethical estimates, and in his carelessness of orthodoxy. It is well moreover, I think, to have insisted on the question What ought to exist for its own sake? or What has intrinsic value? instead of assuming *ab initio* that the subject-matter of ethics is human conduct. The doctrine of organic membership is always the better for being overhauled, though Mr. Moore's criticisms do not seem to me to make any impression on it, resting as they do on the non-modifiability of subjects by relations.

I selected for comment the argument which seemed most original, and on which, as I thought, Mr. Moore himself laid the greatest stress. The criticisms of Mill and Sidgwick are bright and felicitous, though not altogether original. I believe Mr. Moore to have a real vocation as a critic in the sense of a free lance who will make the orthodox reflect and reconsider. But, so far as I can see, he has hampered himself with ideas no less dogmatic than those of the most hide-bound orthodoxy; and he is not yet therefore a critic in the true sense, a critic who can take the standpoint of that which he criticises.

B. Bosanquet.

Humanism: Philosophical Essays. By F. C. S. SCHILLER, M.A., Fellow and Tutor of Corpus Christi College, Oxford. London and New York: Macmillan & Co., 1903.

THE growing number of those who are interested in seeing the new philosophical movement develop and declare itself will be glad of this collection of essays. It is true that, as Mr. Schiller admits and regrets, the book is not a systematic treatise, but it is chiefly his opponents who at the present stage will complain of that. No doubt a systematic treatise would offer more opportunities to the fault-finder, but it might easily also be less alive and stirring. After all, the inevitably hostile party are not the only people to be considered. From another point of view the chief matter for regret is that the essay on Axioms as Postulates could not also have been included here.

There are fifteen essays, besides a long introductory Preface. Though some have been written specially for this volume, most of them are articles reprinted, with additions and corrections, from MIND, the *Philosophical Review*, the *Journal of Ethics*, and other periodicals. They range in date from 1892 to the present time, and ostensibly they range a good deal in subject. But it is hardly possible, for any one who has a far-reaching philosophical theory so much at heart as Mr. Schiller, to avoid applying it even when writing on (*e.g.*) the character of Mephistopheles or of non-Euclidean Space; and interesting glimpses of the application of his views are to be found throughout. I will therefore keep to the subject named in the title, even though it does not exactly cover all the contents of the book.

As is natural with a far-reaching theory which is still taking shape, the essence of 'Humanism' is not quite easy to find. Its difference from what has hitherto been known by the unattractive name of Pragmatism is that the latter is (p. xxi) only the application of Humanism to the theory of knowledge. Another way of putting this seems to be that Humanism is based upon Pragmatism but extends beyond it; or is the application of the Pragmatist method to all philosophical questions. And since, on Pragmatist principles, all meaning consists in application, and a doctrine is therefore related to its consequences merely as a less explained to a more explained statement, the important question here is not how Pragmatism and Humanism shall be defined against each other, but what are the consequences of adopting Mr. Schiller's view. The present book helps us to see clearly some of them, while it leaves others rather uncertainly suggested.

There is no long step between recognising that all meaning consists in application, and recognising the thorough-going purposive character of mental life,—recognising that the distinction between real and unreal, or true and false, is meaningless except with reference to some purpose for which the judgment is made; that the only criticism to which the results of our experience are

open is that which comes through their actual use; and that there can be no such thing (except relatively) as 'pure' reason, or an intellectual function operating in complete independence of practical applications. So far we are on safe ground—even if also rather dry ground—and several of the reforms which Mr. Schiller indicates as the future work of Humanism seem fully attainable from this position without any aid from the dangerous or difficult doctrine about the dependence of truth on the will to believe. It is this latter element in Humanism which one would like to see more definitely limited and explained.

We must bear in mind that the general problem as conceived by Mr. Schiller (p. 6) is that of finding a middle way between Irrationalism and Intellectualism. His remark that if we were forced to choose between them the former would have to be preferred seems to show that he regards the former—in some of its actual manifestations—as already less extreme than the latter. If so, we might rather state his problem as that of introducing a little more reason than usual into the revolt against the kind of Intellectualism which is most in vogue at the present time. It is evidently this revolt that has his chief sympathy, and mainly as directed against a certain pretentious way of philosophising which is sufficiently specified in various parts of the book. As regards this, his contention is that a philosophy which arrives at sheer helplessness, by means of uncritical applications of the Law of Contradiction, and then seeks to console us with phrases confessedly untranslatable into practice, need no longer be taken seriously. Our thanks are due to him for showing so relentlessly the unimportance of the difficulties which have been raised by the misplaced labour[1] and ingenuity of those who attempt to ignore all considerations of practice. The essay on "The Metaphysics of the Time Process" and that "On Preserving Appearances" may be noted as enforcing this lesson, and especially the passage where (pp. 186, 187), instead of the argument that such and such a notion involves contradictions and that therefore the *things so named* are unreal, Mr. Schiller gives us another which is at least equally binding—that the things exist and therefore cannot *be* self-contradictory, and hence that the illusion must lie in so regarding them. As he elsewhere also puts it (in discussing Lotze's Monism, p. 66), "When a thing is actual, it must be conceived as also possible".

As far as regards the deflation of this wordy metaphysical method or fashion, and as regards the reform of Logic generally, it seems to me that we have no need of any Humanist doctrine beyond the recognition that meaning depends on application and

[1] In the essay on Axioms as Postulates he speaks of "the intellectual play of reflective idlers" in this connexion. But we need not therefore suppose him to deny that the game is played laboriously. So the most energetic professional cricketer may seem idle from the industrial point of view.

that thought is purposive throughout. But it may be that the reforms desired by Mr. Schiller in Ethics and Religion require something more full-blooded, something less exclusively an affair of reasoning. It is just here that one finds a difficulty in following his argument and seeing exactly where it leads. The safe part and the risky part of Humanism seem rather loosely related to each other, and it is also no easy matter to give any account of the latter which shall guard it against objections of a simple and obvious kind. Opponents are likely to say, with some show of truth, that it is only the inconsistency with which the view is held which saves it from leading direct to anarchy.

The objection has a familiar sound in philosophical controversy; and it is more easily answered from the Pragmatist standpoint than from any other. Since a doctrine exists only as applied, what appear to be inconsistencies may really be qualifications,—parts of the doctrine itself. The appearance of inconsistency may be due to our pre-occupation with an over-simple conception of what the doctrine asserts, a conception formed for controversial purposes mainly. No great ingenuity, at any rate, would be needed to state the risky part of the Humanist theory so as to make it seem absurd; and we shall, no doubt, see many plausible caricatures of it put forward in course of time by those who resist the proposed reforms. It is even possible that the opponents will not need to confine themselves to paraphrases, but will also be able to quote. In the interests of fairness therefore we may as well try to arrive at the spirit of Mr. Schiller's suggestions, without laying undue stress on this or that fragment of the literal text.

There can be no doubt that, however much he may appear to play fast and loose with the distinction between objective and subjective truth, his intention is not to weaken it but to reform it; and to do this by giving it a less simple and abstract meaning than it has usually had. Although in one passage[1] he plainly declares that there are no eternal and non-human truths to prohibit us from adopting the beliefs we need to live by, this does not amount to saying that there is nothing to prohibit our adopting whatever beliefs we please. However desirable a belief may be, it is only to be adopted tentatively and with a view to later verification. The need of verification is insisted on continually (*e.g.*, pp. xv, 36, 57-59, 193). And although he declines to admit any infallible *a priori* tests of truth, he recognises—just as science does—a gradual growth of safeguards. The beginnings of them are to be found in the individual's own consolidation and subordination of interests under the main purposes of his life, and our less avoidable subjective aberrations are further controlled and sifted—on the same ground of purposes to be served—by the confirmation that individual views get, or fail to get, through social recognition. It is only in this way that Mr. Schiller would identify truth with

[1] P. xvii. The passage is reprinted by Mr. Schiller from a review of *The Will to Believe* written by him in 1897.

"the useful, efficient, workable, to which our practical experience tends to restrict our truth-valuations" (p. 59). Similarly, all that he says, both here and in *Personal Idealism*, about the gradual development of a postulate (or hypothesis) into an axiom (or accepted truth) is free from any taint of anarchy,—any trace of Irrationalism, one is almost inclined to say. So far there is nothing that is difficult for any observer of the ordinary methods of science to accept.

The difficulty begins with the step from admitting that recognition of truth depends partly on non-intellectual factors, to admitting that it should be frankly encouraged to do so. Opponents are likely to point out that between encouragement that is frank and encouragement that is undiscriminating, the line is extremely hard to draw. Indeed one may have much sympathy with the revolt against abstract Intellectualism and still agree with this objection. We may grant that there is no disinterested thought and still hesitate to put forward any generalisation[1] about the value of emotion as a guide to truth. Is it not, undeniably, sometimes a help and sometimes a hindrance or a snare? And at any rate we must be careful not to overlook the difference between admitting that we only judge at all under the stimulus of 'interest,' and admitting that the 'interest' we have in finding a particular judgment true can by itself justify our acceptance of it. The fact that the former kind of interest is necessary to knowledge does not prevent the latter from being one of the commonest sources of error. All this, in one way or another, Mr. Schiller seems to admit. What he really preaches as regards the will to believe may be no more than that we should give our instinctive beliefs, of a hopeful and courageous kind, a fair chance of turning out true by verification.

But then, if we adopt all these qualifications of Irrationalism, is there any particular point in claiming affinity with that movement? The fact of being in revolt against strict Intellectualism, or against excessive abstractness of method, is by itself hardly enough to serve as a link when the sources and the outcome of the revolt are so different. The difference is that Irrationalism obscures even the relative distinction between a well-grounded belief and a fool's paradise, while Humanism is content with showing that such a distinction cannot be made rigid. Humanism

[1] It is by no means clear that Mr. Schiller anywhere lays down such a generalisation. On the contrary, he often recognises emotion as a misleading influence. For example, it may cause "turbid complications" in religious belief (p. xiv); and again Spiritists sometimes embrace their faith "not in a calm temper of scientific research, but in an emotional convulsion, and, it may be, with a pathetic eagerness to deceive themselves" (p. 238). Elsewhere too (p. 58) he points out that our *feeling* a thing true will not *make* it so. And, speaking of those who wish to exclude teleology from science, he says it is ludicrous to maintain that everything is blue because we insist on wearing blue spectacles (p. 154).

does not, like Irrationalism, distrust the use of reason, as such, in distinguishing between real and delusive utility in our beliefs, but rather protests in the name of reason against certain assumptions which are often too blindly trusted in the name of a systematic philosophy. It objects not to reason, but to excessively wordy reasonings. This is shown clearly in essay xi. Again, Mr. Schiller's attitude towards the old conflict between Faith and Reason is not to assume their separation and then to subordinate the latter to the former, but rather to criticise the distinction itself.

Though the results that are claimed for the Humanist method are to a great extent critical or destructive of certain other philosophical habits and tendencies—for example, of Absolutism, and (less definitely) of Monism in general, and of Naturalism—there are also indications of more positive benefits which are intended to follow from it. On the whole the claim is that it sets us free to expand towards a more harmonious view of things, and to escape from fatalism and despair. This result is to be hoped for through the recognition that the supposed determinateness of the universe is an unproved and indefensible assumption, and that though the real may not be plastic to our every demand still its determination rests largely in our own hands. The argument here is again rather hard to follow, if only on account of the (probably unavoidable) vagueness of the conclusion. However, the reader had better consult Mr. Schiller's own statement of it,[1] since the account just given does not pretend to do it full justice.

But leaving aside the question how far and in what sense man may be said to create or control reality, there are other points in Mr. Schiller's doctrine which evidently have constructive value. One of these is his attitude towards "methodological assumptions," —exemplified in the essay on Darwinism (pp. 147-9), and again in the essay on Psychical Research (pp. 270-280). It is only so far as the purposiveness of thought is thoroughly recognised that both the truth and the falsity of methodological assumptions can be simultaneously admitted,—their truth for one purpose and their falsity for another, their value at one stage of an inquiry combined with their obstructiveness as soon as that stage is passed. This is one of the cases where philosophy can learn more from observing the ways of science than science has yet been able to learn from observing the ways of philosophy, and few things have been more detrimental to progress than the metaphysician's dream of doing without "mere practical makeshifts" and achieving perfect truth by refusing to compromise. May we not rather say that the art of discovering truth depends largely on our power of combining the will to believe with the will to leave off believing exactly at the point or points where a belief loses its practical value?

There is constructive intention also in the four concluding

[1] See pp. 10-15, and specially the note on pp. 11, 12.

chapters. In the essay on Activity and Substance Mr. Schiller seeks to revive the Aristotelian notion of an activity which transcends change and motion, and he claims that by means of it we can supersede a number of misconceptions which have been a constant source of trouble in science and philosophy, and can even throw some light on what would otherwise appear to be inconceivable mysteries,—such as the nature of the divine consciousness. Among the scientific and philosophical errors due to the assumption that activity involves motion he instances the belief in the decadence of the universe through the "dissipation of energy," and the difficulty we have in believing that consciousness may persist "in an eternal fixation of unchanging objects". He is inclined to identify the objection to motionless activity with the objection to the notion of an attainable Good, and puts the objectors in the dilemma of either imagining that a confessedly unattainable ideal is one that a rational being can aim at, or else renouncing ideals altogether. Both in the case of life and in that of consciousness his argument is that as long as activity is made dependent on adjustment to changes we are committed to the paradox that improved adjustment means steady progress up to the instant when it becomes perfect, and then suddenly and inexplicably all the results of the progress are blotted out.[1] I find, however, a difficulty in conceiving what is meant by an adjustment (to changes) so perfect that the *changes* disappear. The argument seems only to support an activity devoid of *discord*, or perhaps of the kind of change that is felt as trouble or insecurity.

The three last chapters are concerned with Immortality and a future life; and contain an interesting explanation of the lukewarm interest generally taken in these questions, a statement of some reasons why this is to be regretted, and an appeal to philosophers to play a leading part in Psychical Research,—a science in which (owing to its present boneless condition) philosophy has a better chance of intervening effectively than in the case of older systems of knowledge, since these not only have a much longer record of work achieved, but also feel to a greater extent the drag of vested interests. It is specially in regard to the adoption and criticism of methodological assumptions, Mr. Schiller holds, that philosophy has in this department of science some useful work to do. He urges us to interpret any supposed future life by the knowledge we have acquired of our present life. Our theological heavens and hells are notoriously ineffective in providing motives for resisting temptation, and this result he traces to their excessively 'supernatural' character, their extreme lack of connexion with our present range of experience. Hence a systematic challenge of the assumption that another world must be inconceivably different from this one is needed to clear the air. He seems also to favour the belief in personal spirits rather than any of the vaguer and

[1] See pp. 215-218.

more complex theories that have been suggested (p. 276), claiming for it the same kind of methodological value that the 'solid' atom has in physics over the 'vortex ring' or the 'ether stress'. In the remainder of the final essay he argues against the supposed difficulties in the way of believing in a future life, and concludes that while a scientific proof of the annihilation of the soul is rigorously impossible, there is no such intrinsic impossibility about a scientific proof of the persistence of consciousness through the shock of death.

It is unnecessary, in writing for MIND, to dwell on the qualities of Mr. Schiller's exposition of his views, as distinct from the views themselves. His wit and incisiveness, and his entire freedom from the manners of the owl and the tricks of the ostrich, are well known to the readers of this Journal. Probably, however, there is a real connexion between the Humanist theory and the literary virtues so characteristic of Mr. Schiller and Prof. James. Courage and original thought are among the essential notes of Humanism, and whatever defects it may at present have it shows at least no inclination to win an inglorious safety from attack by running for shelter either to truism or to catchwords or to mere authority.

ALFRED SIDGWICK.

La Formation du Radicalisme philosophique. I. *La Jeunesse de Bentham.* II. *L'évolution de la doctrine utilitaire de* 1789 *à* 1815. III. *Le Radicalisme philosophique.* Par ELIE HALÉVY. Paris: Félix Alcan, 1901-1904. Pp. xv, 447; iv, 385; v, 512.

THIS work is a contribution of first-rate importance to the history of political philosophy in this country. To English readers it may seem, at first sight, as if the ground were already occupied by Sir Leslie Stephen's *English Utilitarians*, which was published about a year before M. Halévy's first two volumes appeared. But it would be a misfortune if the later work were to suffer neglect on this account. The plan of the two books is different, although they deal with the same period. Sir Leslie Stephen has given a brilliant description of the Utilitarian School in its manifold activity. The scope of M. Halévy's work is more concentrated, although his material is drawn from as wide a range. His task is to trace the genesis and development of the set of doctrines which formed the creed of the philosophical Radicals; and this task he has performed in the most thorough and exhaustive way. He has complete command of the voluminous literature of the period, including the mass of unpublished documents; in particular, he has gone through the Bentham manuscripts deposited in the library of University College, London, and they have yielded im-

portant material to his exposition of the growth of Bentham's opinions. A feature of the work is the notes appended to each volume, containing full references to and illustrative extracts from the literature. An appendix to the first volume gives an interesting account of the way in which Bentham's MSS. were dealt with by Dumont, by printing on opposite pages specimens of the original MS. and Dumont's version.

The first volume covers the period prior to 1789, the date of publication of Bentham's *Principles of Morals and Legislation.* It consists of three chapters, dealing respectively with Bentham's principles and their origin, his juridical philosophy (civil law, penal law, and the relation of his doctrines to the epoch), and his economical and political theories: the last in two sections, one entitled 'Adam Smith and Bentham,' the other 'Democrats and Utilitarians'. The first chapter of the second volume is on the Political Problem, and is in two sections: one on the opposition between the principle of utility and the Declaration of the Rights of Man, and dealing with the relation of Burke and Bentham; the other dealing with Mackintosh, Paine and Godwin. The second chapter—on the Economic Problem—discusses the right to subsistence (with special reference to Godwin's views), and Malthus's principle of population. The third chapter, on Bentham, James Mill, and the Benthamites, is divided into four sections: the birth of Radicalism; from Adam Smith to Ricardo; the education of the people; growing fame of Bentham. The three chapters of the third volume treat respectively of the Natural Laws of an Economic Society; the Organisation of Justice and the State; and the Laws of Thought and Rules of Action. A conclusion sums up the doctrine and influence of Bentham.

It would be out of place, in this journal, to give an exhaustive review of the author's treatment of these topics, which enters into considerable detail on matters of economics, politics, and jurisprudence: it must suffice to acknowledge the combination of lucidity and thoroughness which distinguishes his exposition. My comments will be confined to a few points of more general philosophical interest.

Bentham has himself given an account of the formation in his mind of the utilitarian principle and of the hedonic calculus, in two passages quoted here from his manuscripts. The earlier is ascribed by M. Halévy to about the year 1782, and contains the following sentences:—

"The idea of considering happiness as resolvable into a number of individual pleasures I took from Helvétius. . . . The idea of estimating the value of each sensation by analysing it into these four ingredients [intensity, duration, probability or certainty, proximity] I took from M. Beccaria: gleaning up those several articles from different places in which I saw them made use of in estimating the force and utility of punishments. Considering that punishment is but pain applied to a certain purpose, that the

value of a pleasure is composed of the same articles, and that pains and pleasures, and actions in as far as they had a tendency to produce or present the one and the other, were all that morals and politics or so much as was of any use or meaning in the sciences had in view, it seemed to me that such an analysis was the very thing that was wanted as the foundation for a complete system of moral science" (i., 404).

The other passage is a letter to Dumont dated 6th September, 1822:—

"When I came out with the principle of utility, it was in the *Fragment*, I took it from Hume's Essays, Hume was in all his glory, the phrase was consequently familiar to everybody. The difference between Hume and me is this: the use he made of it was—to account for that which *is*, I to show what *ought to be*" (i., 282).

The former of these passages is perfectly clear so far as it goes; and incidentally it seems to me to elucidate a difficulty in the Benthamite calculus which has been criticised by Sidgwick. Sidgwick's criticism is that 'certainty' and 'proximity' are not independent characters, and that the mere fact of the greater proximity of a pleasure or pain does not affect its hedonic value except in so far as it affects its probability: in a rational estimate one moment of conscious life is not of greater value than another moment. This criticism is unanswerable. But the passage quoted shows how Bentham came to fall into the error. He was following Beccaria's analysis of the effects of punishments; and the proximity of a punishment does affect the will with a force which cannot be measured simply by its degree of certainty. Bentham's mistake is due to his making no allowance for the difference between the circumstances which influence conation and the circumstances which are relevant to a purely rational estimate.

The later date of the second passage detracts from its authority; it is difficult to decide how much weight should be assigned to the reference to Hume, whose position in the Utilitarian succession is not easy to define; and perhaps Priestley influenced Bentham more than Hume did. The formula of utilitarianism at any rate was much earlier than either, and was clearly stated by Hutcheson in 1725, in the words: "That action is best which accomplishes the greatest happiness for the greatest numbers" (*Inquiry*, p. 164); and from this source it was perhaps derived indirectly by Bentham. Helvétius followed in 1758 by defining justice as consisting in "la pratique des actions utiles au plus grand nombre" (*De l'esprit*, II., chap. xxiv.), but whether he was indebted to Hutcheson I do not know. Beccaria, however, is thought to have read Hutcheson (*cf.* Scott's *Hutcheson*, p. 273), and his *Dei Delitti e delle Pene* (1764) expresses the criterion in the phrase "la massima felicità divisa nel maggior numero"—a phrase Englished by his translator (1767) by "the greatest happiness of the greatest number," the exact words which Bentham uses to express his "fundamental

axiom" in the preface to his *Fragment on Government* (1776).[1] In a footnote to the *Fragment* he refers to Hume for the general principle that virtue is founded on utility, and to Helvétius for the denial of any exceptions to that principle.

Hume's relation to utilitarianism and the attitude of the utilitarians to Hume are briefly but excellently characterised in the opening chapter of the work. The principle of association and the principle of utility were both elaborated by Hume, but rather as a weapon wherewith to overthrow intellectualist theories than as themselves an adequate basis for a rational philosophy capable of application to life. His criticism was too thorough for the militant utilitarians. He pointed out how utility is characteristic of every object of admiration, but, in spite of Hutcheson's contribution, he passed quantitative utilitarianism by in silence, and of Helvétius's *De l'esprit* he wrote to Adam Smith, "It is worth your reading, not for its philosophy, which I do not highly value, but for its agreeable composition" (Burton's *Hume*, ii., 57).

The central question for the adherents of utility is that of the relation of the interests of the individual to the interests of the community. Throughout his whole work M. Halévy brings out the persistence of this problem, and the different ways in which it was sought to establish an "identity of interests". Three methods are distinguished by the author, all of them, as he says, to be found in Hume. According to the first method the identification takes place spontaneously in the individual consciousness by sympathy or by the moral sense; and this method is used by Shaftesbury and Hutcheson, although it is obviously inadequate to the facts. According to the second method, the egoistic tendencies of different individuals harmonise in their results and produce mechanically the good of the species. This idea of the "natural identity of interests" is a leading conception of Adam Smith's economics, according to which the active pursuit of his

[1] Bentham's own account of his acquaintance with the phrase is different. In his *Common-place Book* (1781-1785) he says: "Priestley was the first (unless it was Beccaria) who taught my lips to pronounce this sacred truth" (*Works*, x., 142); and, in an account (undated by Bowring) of a tour in the north of England made with his father in 1764, he writes, "Warrington was then classic ground. Priestley lived there. What would I not have given to have found courage to visit him? He had already written several philosophical works; and in the tail of one of his pamphlets I had seen that admirable phrase 'greatest happiness of greatest number'" (*Works*, x., 46, *cf.* x., 79). But Priestley's philosophical works were all subsequent to 1764, and his editor has not "found the 'phrase' *verbatim* in Dr. Priestley's works," and thinks that Bentham's reference must be to p. 17 of the *First Principles of Government*, which was published in 1768. See Priestley's *Works*, ed. Rutt, I., i., 52. Probably Bentham's memory was not quite accurate. Judging from the identity of verbal expression, it seems to me most likely that he got the 'phrase' from the English translation of Beccaria. It was Bentham's influence which gave it currency.

own interest by each individual tends to realise the general interest, not exactly "d'une manière immédiate," as M. Halévy says (i., 21), but under the overruling guidance of "an invisible hand". Or, dropping its more paradoxical assertions regarding present conditions, this theory of the natural identity of interests may still be maintained as the statement of a tendency which is being progressively realised. In this form Hartley derived it from his doctrine of association; it was further developed by Priestley, and became a doctrine of indefinite progress and of the perfectibility of man, leading logically in Godwin to the thesis of anarchism (i., 238). According to the third method, the identification of interests is contrary to nature and can only be brought about by the artifices of the legislature. The three methods may thus be described as fusion of interests, natural identity of interests, and artificial identification of interests. The last is the primitive and fundamental form of Bentham's doctrine of utility—it forms his 'duty and interest junction principle' (ii., 154)—and explains the prominence in his thought of the problems of penal law. Hume had already adopted this view for the purposes of his political theory; but M. Halévy is right in pointing out Bentham's special indebtedness here to the influence of Helvétius and also of Beccaria. The distinction between the natural and the artificial identification of interests is repeatedly referred to by the author in the course of his work, and is of great importance in making clear the different developments of thought connected with the utilitarian principle.

The circumstances which led to the formation of the doctrine of philosophical Radicalism are brought out with great care by M. Halévy.[1] Priestley was a democrat as well as a utilitarian, but he does not seem to have influenced Bentham in the direction of Radicalism. Democracy was associated (as in Richard Price) with a theory of innate ideas and natural rights. It was natural therefore that Bentham should oppose both the dogmas of Whiggism in his *Fragment* of 1776 and the more pretentious dogmas of the French Declaration of Rights in 1789. It was in an article in the *Edinburgh Review* for January, 1809, that James Mill based the doctrine of representative government on the doctrine of utility. Bentham had made his acquaintance in the previous year, and his conversion to Radicalism is referred by M. Halévy to about this time: "He allied himself with the radicals of Westminster, got converted to their opinions, and provided them with a theory" (iii., 341). It was only after his pet projects had been neglected or trifled with by 'the insolence of office' that Bentham came to see that an aristocracy is a corporation and that a corporation has necessarily interests of its own opposed to those of the public.

[1] Coleridge is, however, rather inappropriately referred to (ii., 8) as if he were an adherent of the "metapolitics" which he criticises. See *The Friend*, sect. i., essay 3.

"This is the conclusion, but Bentham's premisses are not so much abstract principles as the actual events which had marked the previous twenty years of his life. He once reproached James Mill with hating oppression 'less from love to the many than from hatred of the few'. Would not the observation apply just as well to Bentham?" (ii., 193.)

Mill was the most potent force in co-ordinating and promulgating the creed of philosophical Radicalism. "Bentham gave Mill a doctrine; Mill gave Bentham a School," says the author (ii., 187). But he did much more than this; as M. Halévy shows, whose third volume is largely filled with Mill's activity. Mill was the philosopher, the thinker, of the school, who looked to him to find a secure basis for their doctrines in the 'phenomena of the human mind'. M. Halévy's account of Mill's philosophical opinions is of great value, and includes an interesting comparison of his psychological method in morals with the juridical method of Bentham. The former was rigorously egoistic, but as such (the author holds) only continued the tendency to an egoistic explanation of all mental facts which had constantly tended to predominate in Bentham's system (iii., 293). "It is the moral code of a new time which Bentham and James Mill promulgate, . . . a plebeian, or rather *bourgeoise* morality, made for working men and careful merchants, which teaches its subjects to take into their own hands the defence of their interests, a morality reasonable, calculating and prosaic. The morality of the utilitarians is their economic psychology put into the imperative mood" (iii., 316).

The work closes with a judicious estimate of the practical achievements of Bentham and his school, and of the value of the ideas by which their thought was determined.

W. R. Sorley.

Reports of the Cambridge Anthropological Expedition to Torres Straits. Vol ii., *Physiology and Psychology.* Part i., "Vision," by Dr. W. H. R. Rivers, with an appendix by C. G. Seligman. Part ii., "Hearing, Smell, Taste, Cutaneous Sensations, Muscular Sense, Reaction Times," by Dr. C. S. Myers and Dr. W. McDougall. Cambridge: University Press, 1901, 1903.

These volumes are two of a series dealing with the anthropology of the Torres Straits, and give some results of the work done by the Cambridge Anthropological Expedition. Both of them deal with psychological data collected on sensory levels and do not undertake any treatment of such problems as the psychology of grammatical construction, or of religious ideas or methods of reasoning. The procedure was necessarily such as required little or no conscious introspection on the part of the natives, and was completely *unwissentlich*.

It would be impossible in a review, especially in a short one, to give in detail either the methods employed or the conclusions reached; but several important general psychological considerations may be selected for comment.

There has always been a tendency, in speaking of the differences between civilised and savage man, to rate the latter much higher than the former in all that relates to sensory perception. Travellers have told us of the marvellous visual and auditory acuity possessed by primitive peoples. And educational reformers, insisting on the necessity for preserving acute sensory discrimination, have pressed upon the common schools a great deal of work to counteract our own alleged growing sensory defects. But to be certain of the facts is always something, and the volumes before us go a long way towards supplying us with knowledge. When supplemented, as I hope they may be, by similar work on a large scale on civilised man, children as well as adults, we may be in a position to make general conclusions, psychologically and pedagogically.

In Visual acuity Dr. Rivers concludes that the savage is rather superior to the white man. He rightly points out that the savage power of identification is a power to identify objects known to him, and not so well known to the white man; so that comparisons thus instituted are not tests of visual acuity. This consideration, by the way, makes the conclusions based upon the identification of letters by European school children of very doubtful value as visual tests. The Torres Straits native does not fatigue easily, but does not improve rapidly; the European does both. It may be that rapid fatigue is connected with rapid improvement, but most probably the distance from 'saturation point' is an important and overlooked factor.

Of course we carry our own standards with us and call the normal long vision of the savage and the child 'hypermetropic,' but this is not necessarily a defect among savage peoples, having regard to their conditions of life. The savage, we read, finds things more easily in the dark, his 'visual purple' accumulates more rapidly; but some of us can find things easily in the dark and good motor memory may account for it, without superior vision.

One of the most interesting general conclusions in this part of the work is that which is forced upon Dr. Rivers that the 'elaboration of the sensory side of mental life should be a hindrance to intellectual development' (p. 42). Some of us, who have always contended that mental elaboration of our sensory material is more important educationally than an extensive accumulation of touches, and sights, and sounds, will call attention to this opinion with pleasure, as it is evidently not the notion with which the author commenced his investigations.

Another point of general psychological interest is that raised in connexion with colour sensation and nomenclature. Has the

colour-sense developed in man within historical times? We know that colour terminology has shown such a development; is it, or is it not, accompanied by a growing sensibility? Or must we say that the 'sensations' have been the same all along, but lacking names of distinction? The psychologist who approaches his subject from the philosophic side would, I think, give an *a priori* probability to a view which implied parallel development. But psychologists who approach the matter from the standpoint of natural science seem to incline to a non-developmental view of colour sensation. It is so hard to get on without atomic constants, that they are apt to postulate that the several sensations must have been there all the while. Dr. Rivers, however, inclines to the former view. The problem is to find a test not involving the use of language, which will show whether defective sensibility is, or is not, allied to defective nomenclature.

Mr. Lovibond's tintometer was used with glasses of varying colour saturation on one side and colourless glass on the other. The Murray Islanders said that they saw 'red' when at a lower saturation than that required before Europeans could distinguish it, and the reverse was the case with 'blue'. The threshold was estimated by finding the glass which could be correctly named four times out of five. Here, obviously, the colour name is still operative, and we have yet to seek a test independent of it if we are to obtain anything 'objective' which may confirm or negate the theory that defective sensibility accompanies defective nomenclature. Some reaction must be found more independent of colour names. Yet, unless there is connexion between sensibility and nomenclature, it is hard to see why natives, giving to colours the names of natural objects, should deliberately call a brilliant blue by a name applied to dirty water. In colour matches, there was confusion between green and blue, and black and blue, and blue and violet, whilst blue-yellow blindness, so rare among Europeans, was suspected. Women did not know colour names so well as men, and were less critical as to shades of colour. These considerations point to the theory of connexion, but the tintometer tests hardly advance the matter much.

A section on what are ordinarily called spatial illusions has interesting bearings on the general sensory similarity supposed to exist between savage man and the civilised child.

The over-estimation of vertical lengths as compared with horizontal lengths is found to be both considerable in amount and constant in occurrence among Murray Island adults. Teachers of elementary drawing know how widespread the same 'illusion' is among English school children and how hard it is to overcome it, even partially. Dr. Rivers suggests that the oval field of binocular vision may account for it; but, if so, monocular vision with a less oval field should show it less, and we must await quantitative results on this point.

In the second part of the volume the range of sensory experi-

ment is a wide one, and this section is occupied with many detailed results carefully worked out, as in the first section, yet differing from it in containing less in the way of suggestive theory.

Here, again, in the case of Hearing, we have the reduction of travellers' stories to scientific moderation and accuracy. Inference is found to play a very important part in the ready identification which has so often been ascribed to auditory acuity. Acuity of Hearing in savages seems distinctly inferior to that of civilised man, though perhaps we lack a sufficient number of Europeans tested under the same conditions. One is less surprised at finding that tone discrimination is inferior to that of Europeans, for musical capacity, with the tone discrimination which it implies, is generally held to be more especially a civilised product. Range of pitch perception, however, is equal to that of civilised man. Dr. Myers thinks that some failures arose "from lack of interest rather than intelligence". Perhaps the notion that interest is something quite outside and independent of capacity needs critical mention. A noteworthy point is the very little improvement which was effected by practice. Children of both native and civilised communities were 'more discriminative than adults,' "saturation" point is probably reached at a very early age. But in this respect there was a very marked difference between the higher pitch limit and just perceptible tone differences. In the latter case the islanders were poor, and the connexion between interest and capacity comes out strongly, for these estimations were certainly "the most distasteful to them," but improvement by practice was rather marked.

The next section deals with Olfactory acuity and discrimination. In smell, more markedly than in other senses, increase in strength produces change in quality as well as in intensity.

The average olfactory acuity seems slightly higher in Murray Island and in the Torres Straits generally than in Aberdeenshire, and the children of both communities seem more acute than the adults. It seems hard to reconcile the stories of great olfactory power possessed by primitive peoples with such results as these. Perhaps the difficulty lies in finding scents with which European and savage are equally familiar or unfamiliar, and it may be that olfactory organs, specialised in certain directions by the usages of life, less readily respond in others than the relatively undifferentiated sensibility of childhood. Practice may make perfect; but a specialised perfection, not a general adaptability, is the result.

An interesting question, all too briefly treated, arises in connexion with taste discrimination and taste nomenclature. Dr. Myers thinks that the confusions were those of nomenclature only. Dr. Rivers thinks, on the parallel question of colour nomenclature and sensibility, that a connexion exists between one confusion and the other. One important consideration is that when placing 'sweet,' 'salt,' 'acid,' and 'bitter' substances in order of preference, the bitter solution was always placed last, though the name was

by no means definite. On the other hand the writer states that "many Europeans have a very indefinite notion of what bitterness really is". We need some method of sorting tastes as we sort colours, if we are to arrive at any clear conclusion on this debateable question.

Dr. McDougall deals with cutaneous sensations. The power of tactile discrimination is found to be about double that of the European, though sensibility to pain is only half as great.

The so-called muscular sense is more discriminative than among Europeans; practice seems to have little to do with it, as children and adults are much the same. And it seems that the differentiation between their sensations of weight and size are less, or the associations more complete, since the size-weight illusion was much more marked than among Englishmen.

Speaking generally, the philosophical interest of work of this kind seems to me very considerable. We have always known of sensory illusion, but sensational change and development is not sporadic, it seems, nor occasional, but normal evolutionary process. If we can rid ourselves of the notion that unity of thought can be assured if we only put everybody face to face with the same material objects, to touch, and see, and hear for themselves, it will be something gained. Sensations can no longer be held to be beyond the reach of error, or considered as changeless identities, atoms of solid truth in a world of changing judgments.

W. H. WINCH.

Why the Mind has a Body. By C. A. STRONG, Professor of Psychology in Columbia University. New York: The Macmillan Company, 1903. Pp. 355.

THIS volume, which treats of the connexion of mind and body both in its empirical and in its metaphysical aspects, falls into three divisions. The first part states what Prof. Strong calls the empirical data of the problem, arranging them into classes and discussing their consistency with each of the three current theories, interactionism, automatism and parallelism. The problem cannot, however, be empirically solved, and our author accordingly launches out into metaphysics, developing a theory which he regards as an extension of the panpsychism of Fechner and Clifford. The third part then gives 'experimental confirmation' of this metaphysic by application to the problem in hand. Mr. Strong claims that it enables him to state the parallelist doctrine in a new light before which its chief difficulties vanish.

Prof. Strong possesses unusual power of exposition and illustration; and the volume is throughout delightfully fresh and vigorous. To all those who agree with Prof. Ladd (*vide* MIND, July, 1903) that the time has come for a thorough revision of the various

theories as to the relation of mind and body, and who desire to reconsider the problem in its various aspects, this volume can be most heartily recommended.

Nevertheless I have found difficulty in reviewing this book. It covers so large a field and contains so much highly controversial matter, that while a summary of the whole would be too general to be intelligible, a criticism merely of detailed points would be unfair to the author. I shall strive to steer a middle course, indicating the general scope of the work by statement and criticism of a few of the author's main positions.

Most of Prof. Strong's readers will probably agree that the parallelist theory, spite of the paradoxial conclusions to which it leads, justifies itself as a practical working hypothesis. Though it cannot be demonstrated as a necessary consequence either of the nature of the causal relation or of the principle of the conservation of energy, it may be followed so long as it proves fruitful in enabling the physiologist and the psychologist to systematise their data. Mr. Strong, however, states the doctrine in a form which I find utterly unthinkable. "The correspondence applies not merely to the elements on each side but also to their relations and arrangement. The brain-process becomes a sort of translation of consciousness into physical terms, the relation between the two being comparable to that between a sentence in Greek and its translation into English. The correspondence implies, in other words, that the mental element has the same place and function in the mental series that the physical element has in the physical series" (p. 79). Now I had thought that Dr. Ward's criticism in his Gifford Lectures had finally disproved such teaching. It would surely, as Dr. Ward has insisted, be strange indeed if two complete opposites could so completely correspond. Can we hope to find in the mechanical sphere of matter and motion a symbolism adequate for the expression of the higher unity of the mental life? Wundt seems justified in asserting that such a belief involves the assumption of a *Seelenpunkt* in the brain—an assumption to which physiology yields no countenance, if indeed, as Dr. Ward adds, it is even conceivable. As the definition of parallelism is fundamental, and Mr. Strong draws many important inferences from it, it is disappointing to find him ignoring such difficulties. His reply in chapter iii. to Wundt's carefully stated limitation of the parallelism seems to me quite inconclusive and much too general. Wundt's chief arguments he does not even mention. He limits himself to proving, what Wundt would never dream of denying, that brain-fatigue affects attention and all the higher powers of mind. Those who reject an absolute parallelism are surely not committed to any such outrage on the obvious facts.

Prof. Strong's treatment (chapter vii.) of the argument for parallelism from the principle of the conservation of energy is excellent. While indicating that his own metaphysical view is quite compatible with, and indeed implies, the universal validity

of that principle, he contends that as it is an induction from experience, "based solely on the study of physical events which are unaccompanied by consciousness, it cannot be argued without fallacy that where physical events are accompanied by consciousness it must hold good just the same" (p. 141). It is not a necessary law of thought, and has therefore only the provisional validity of a regulative principle. Mr. Strong's method of connecting the doctrine of parallelism with the causal argument which he considers to be its chief support does not seem to me equally satisfactory. Though I altogether sympathise with his unwillingness to admit the possibility that such different things as motion and sensation can be causally related, I cannot agree with his mode of argument. His criticism of Hume—that in asserting the absence of rational connexion in physical causation he overlooked the qualitative identity and quantitative equivalence of cause and effect—is certainly unjust. Hume's favourite instance of such relation is that of two billiard-balls interacting. He was quite aware that the effect varies in quantity with the cause, but such equivalence he rightly regarded as merely an empirical datum or sign enabling us to determine with greater certainty which sequences we may name causal. It yields no real insight into the actual nature of the causal connexion. Even should the empirical facts yield adequate proof that the cause *becomes* the effect, Hume's main contention, that the 'passage' of the motion from the one ball to the other can never be traced in thought, remains unaffected. I therefore quarrel with such sentences as the following: "[In psycho-physical causation] there can be no construction of a continuous series reaching from cause to effect. . . . We cannot, as in purely physical causation, picture to ourselves the cause passing over into the effect or giving birth to it by transformation, since the two belong to different orders of existence" (p. 153). The same difficulty really exists in both cases.

But my chief reason for disagreeing with Prof. Strong is that his view of causation would force us to the conclusion that causal activity is intelligible, exists "in the proper sense" (p. 157), only where there is no difference of quality between cause and effect. Now that would limit all real causation to the unreal abstract world of matter and motion, and would contradict Mr. Strong's own repeated assertion of psychical causality. "Since brain-events are active things, we must ascribe a corresponding activity to the accompanying mental states, otherwise the parallelism would be incomplete" (p. 85). Indeed, later on in the book we find the author maintaining that physical processes are in a metaphysical sense unreal, and merely symbolical of mental causation. It is, then, surely, on Mr. Strong's own showing, impossible to eliminate qualitative differences from the causal relation, and the disparity of the mental and the physical is by itself no disproof of their causal interconnexion. Also, as Mr.

Strong himself points out, the argument, when taken as proof of the parallelist theory has a further defect, namely that it assumes, what cannot be empirically proved, that mental state and brain-state are simultaneous, not successive.

Probably the real reason of Mr. Strong's unsatisfactory treatment of the causal argument is the sharp distinction which he draws between it and that from the principle of the conservation of energy. The two arguments are really at bottom one, and can only be adequately discussed in their connexion. The confusion caused by their separation is specially obvious on pages 156-157.

In the following sentences (pp. 159-160) Mr. Strong sums up his examination of the various empirical arguments: "Of the sound ones, the causal argument proves the parallelist thesis, but its validity is hypothetical, resting on the assumption that mental events are simultaneous with their cerebral correlates. We may therefore dismiss it from consideration. The argument from the principles of biology appears to prove the mind efficient; but it is subject to the difficulty regarding the origin of consciousness. The argument from the principle of the conservation of energy raises a strong presumption, not amounting to demonstrative proof, that the contrary is the case. Thus two great branches of natural science seem arrayed against each other. Physics and biology appear to authorise opposite conclusions concerning the efficiency of mind." Metaphysics alone can be the arbiter between them.

The following is Mr. Strong's own statement of his metaphysical results (p. 295): "The prime reality, the only reality ever immediately given, is consciousness. Matter is not a reality, but a phenomenon. As such it symbolises things-in-themselves, whereas mental states as such symbolise nothing. . . . Since consciousness is the only reality of which we have any immediate knowledge, and therefore the only sample of what reality is like, we have no other conception of a reality. Hence we must assume things-in-themselves to be mental in their nature; and this is the more necessary, that individual minds arise out of them by evolution."

Though this metaphysical theory is developed with considerable subtlety of argument, Mr. Strong seems to me on the really crucial points to show very inadequate appreciation of the difficulties he has to face. For instance, though his whole theory rests upon the assumption that all experience is purely subjective, he offers as its sufficient proof the phenomena of colour-blindness—"the notion that the objects I see are literally *identical with* the objects you see being a gross superstition, refuted, among other things, by the facts of colour-blindness" (p. 223). But surely that view, perennial in philosophy, cannot be so simply refuted. The incapacity of a man colour-blind to see the colour another man sees is no proof that he would not if he could see. The conditions being altered, the objects seen cannot be in all respects identical. The general argument, that our perceptions are subjective because they vary not only with the object but with the

retinal impression and the brain-state, would ultimately prove the subjectivity of every element in our perceptions, and therefore (as Mr. Strong himself admits) the subjectivity of those brain-states of which the impressions are supposed to be the effects. Mr. Strong throughout implies that to prove the conditionedness of our perceptions is to prove their subjectivity: two very different things. Physiology indisputably establishes the first: many philosophers (with deference to Mr. Strong's opposite opinion) question the second.

Mr. Strong's method of escaping solipsism is equally high-handed, and may almost be regarded as an indirect refutation of his view of consciousness. As consciousness cannot transcend itself, our knowledge of other minds is founded, he holds, neither on reason nor on experience, but solely on instinct. This transcendence, however, turns out to be involved in every act of memory. Relatively to the present moment, "the past experience remembered is in the position of another mind and the knowledge of it transcendent" (p. 222). "Memory is therefore as genuine a surmounting of the bounds of experience as the knowledge of other minds." Similar statements are made with regard to the completed act of perception. Hence Mr. Strong must couple his thesis that consciousness is essentially immanent with the complementary limitation that it is in all these processes by instinct transcendent—which looks very like external adaptation of a false theory to conflicting facts. Mr. Strong does not indicate how he would explain the origin and working of such an instinct, and many of his readers will be rather sceptical of his succeeding where Hume has failed.

Owing to lack of space, I cannot enter upon Mr. Strong's metaphysical restatement of the parallelist theory. It is simply a particular application of this general metaphysic, but is developed with great subtlety, and with detailed, and often valuable, criticism of all opposing theories. Of the many excellent qualities of this volume I cannot speak too highly. Its freshness and vigour will commend it even to those who, like myself, find difficulty in agreeing with its metaphysical conclusions.

NORMAN SMITH.

Giordano Bruno. By J. LEWIS MCINTYRE, Anderson Lecturer in the University of Aberdeen. London: Macmillan & Co. Pp. xvi, 365.

MR. MCINTYRE has here provided the English reader, for the first time, with an adequate and circumstantial account of the philosophy as well as the life of Giordano Bruno. Many small points relating to the life which have been disclosed in recent years are incorporated. If we may draw the obvious inferences

from the most recent information, we can now partly explain Bruno's return to Italy after he had written as he did of the "vicar of the tyrant of hell," the "three-headed Cerberus with its threefold tiara," the "dog of Styx," the "Tiberine beast," the "monster of perverse Papal tyranny, which has tongues more numerous than the hairs of the head, aiding and serving it, each and all blasphemous against God, nature and man, infecting the world with the rankest poison of ignorance and vice" (pp. 58-61). The proceedings of the trial at Venice, Mr. McIntyre concludes, "make it extremely probable that the Inquisition laid a trap for Bruno, into which he unsuspectingly walked". For Mocenigo, the betrayer, "had been one of the *Savii all' Eresia*—the assessors appointed by the State to the Inquisition Board in Venice". He may have promised Bruno the protection of the Venetian Republic, —which, indeed, was unwilling to give him up for trial at Rome, and, in return for its reluctant compliance, was thanked by Pope Clement with "courteous and kindly words". "The persistency of the Pope's representative at Venice," says Mr. McIntyre, "and the Pope's evident relief when Venice yielded, show how important the death or complete recantation of Bruno had come to be thought by the Catholic party" (p. 85). Still, his return to a country where the Inquisition had its seat remains sufficiently astonishing; though it is almost paralleled by the author's remark (p. 294) that Bruno "all his life belonged in spirit if not in outward conformity" to the Roman Catholic Church. The case is rather that he was always willing to conform if he might remain avowedly in spiritual separation. His demand on behalf of philosophy, in return for outward conformity, was that he should be free to propagate his own thought among those who were able to understand it. This position—now only intelligible historically —explains his temporary yielding before the Inquisitors at Venice. It had long been a theoretical position of heterodox philosophers that, while the religion of faith and authority might suffice for the many, the few who were competent ought to be allowed to pursue truth for its own sake. The Church of course perceived (what was perhaps not altogether hidden from the philosophers) that sooner or later the ideas of the few would penetrate to the many; and the doctrine of the "double truth" was no more allowed in the sixteenth century than it had been in the thirteenth. If Bruno adhered to his philosophy there could be no doubt as to his ultimate fate. "One thing is certain: he never either then or afterwards recanted or in any way withdrew a single proposition belonging to his philosophical creed" (p. 87).

The curious remark noticed above will not mislead any reader of the book; and the fancy is after all one in support of which occasional utterances of Bruno himself can be cited. His antipathy to Calvinism was even greater than to Catholicism—or he thought so; and this made him sometimes apparently take the side of that which at any rate could not be called a new fanaticism. In a

figure of his own, the new sects are the serpents with which "swarmed once the soil bedropt with blood of Gorgon"; the ancient Church is the severed head.

The general view of Bruno's philosophy and of its development set forth in the second part of the book seems to me perfectly sound; and there is hardly anything to which exception can be taken in detail. In one passage, however, the shade of expression with reference to Bruno's Copernicanism is wrong. The Copernican theory of the solar system is described as "holding him fast to the one all-important fact that the earth is not the centre of the universe but one of its humblest members" (p. 151). It ought to have been noted that this was not Bruno's way of looking at the matter. In his own view, he was destroying the mediæval conception which made the earth the "dregs of the universe," sunk down to the bottom through its inherent gravity; and was substituting for it a cosmic theory according to which the earth was a star of no less divine substance than the rest. Another slight mistake is where surprise is expressed (by a note of exclamation) that Bruno should describe Averroes as "ignorant of Greek" (p. 136). In this he was not only quite right but had escaped a common error of the learned in his age, who thought Averroes himself had translated Aristotle (compare Renan, *Averroès et l'Averroïsme*, chap. i., § 6).

The real and great originality of Bruno amid all his apparent eclecticism is effectively brought out. "His imagination runs riot in the pursuit of allegories, metaphors, similes from mythology. . . . So far was this enormous mass of material from blocking up the spring of originality in his mind, however, that the ideas in which he may be said to have 'anticipated' modern thought are innumerable. No doubt, in many cases, they came from the earlier Greek philosophers whom he chiefly studied; but Bruno invariably gives them a connexion with his own theory, such as precludes us from taking his restoration of them for a happy chance" (p. 107). The characteristic of his speculative thought generally is found in the union of idealist intellectualism with the strongest bent towards a naturalistic interpretation of things (p. 321). This is found equally in his ethical philosophy; where he combines the new-born modern regard for fulness of life with the intellectual aspiration of his nearest Greek predecessors (pp. 264-265). His continuity with those predecessors, and at the same time his difference, is seen especially in his conception of the quantitative infinite, which he deduced from their principles where they had not deduced it themselves. Mr. McIntyre has succeeded in bringing out, in his exposition of this conception, Bruno's genuinely logical defence of it against objections. Of Bruno's specially mathematical philosophy he does not profess to give a complete account; but, as far as he has gone, he has performed with care a difficult task and has set forth the result with great clearness. In geometry the theory was a kind of atomism applied

to space. Geometrical figures are to be conceived as made up of physical *minima*. These, in all their kinds, are innumerable. Instead of a finite universe with a space each portion of which is infinitely divisible in virtue of its continuity, we have thus an actually infinite universe made up of real indivisibles. This theory of discrete physical *minima* led of course to errors in geometry. Bruno's erroneous line of thought here, it may be observed, recurred in Berkeley, and again in Hume, who, however, abandoned it later.

The atomic and monadic side of Bruno's philosophy, which is apt to be somewhat neglected in comparison with his cosmical and monistic conception, gets due attention. The author, indeed, is inclined to regard it as the most important side historically. He finds, however, that Leibniz, in working out similar views, did not come under the influence of Bruno. It is remarkable that their doctrines present a similar difficulty as a whole. "How Bruno understood the relation of the finite human soul to the divine mind, or to the soul of the universe, it is not easy to determine, and it is doubtful whether he ever made it clear to himself" (p. 307). Might not the same be said of Leibniz? Their positions, however, are still in a manner antithetic. Bruno had attained most clearness about the universal, Leibniz about the individual reality. Thus it has always been felt that Bruno's affinity is with Spinoza among his successors, and in this Mr. McIntyre agrees. Indeed he adopts the position that Spinoza, in the earlier phase of his philosophy, was actually influenced by Bruno. This is a point not yet settled. Perhaps the study of it might still be fruitful even if it should not lead to a decisive result as to the historical connexion.

T. WHITTAKER.

VII.—NEW BOOKS.

The Philosophy of Auguste Comte. By L. Lévy-Bruhl, Maître de Conférences de Philosophie à la Faculté des Lettres de l'Université de Paris; Professeur à l'Ecole libre des Sciences politiques. Translated by Kathleen de Beaumont-Klein.

The reader of Prof. Lévy-Bruhl's volume entitled *The Philosophy of Auguste Comte* will be convinced that the work is the outcome of the author's sympathetic understanding of Comte's complete system.

M. Lévy-Bruhl has risen to the plane of the true historian who seeks, not only to grasp the fundamental principles of the system, but also, from the higher point of view of criticism, to discriminate between what is of enduring philosophic interest and what is only of momentary importance. With this end in view, the author has confined his attention to the 'Cours de Philosophie Positive' and excluded the 'Politique Positive'; for, though Comte considered the former to be merely the preliminary part of his work—posterity is finding in it the most fruitful and living thought.

M. Lévy-Bruhl follows, in the main, the order of treatment set forth in Harriet Martineau's translation, but his desire to conform to historical reality has led him to apportion out the space differently. Even in this he is merely extending the process of selection begun in that masterly work. For instance, he wisely refrains from giving a detailed account of Comte's examination of the particular sciences, for what our philosopher had to say of these, which fifty years ago were in comparative infancy, could hardly be taken to be what he would think to-day.

M. Lévy-Bruhl puts the reader in possession of the general point of view of Comte's system and so enables him to view each principle in its true perspective. That this must have demanded most careful study on the part of the author is realised when one recollects that Comte's writings are in the form of a series of lectures, extending over a period of some twenty years.

In the introductory note Mr. Frederic Harrison remarks: "Prof. Lévy-Bruhl writes as a student but not as an adherent of Auguste Comte". The volume is, nevertheless, more than an exposition, in the ordinary sense of that term, for it contains the replies to those adverse criticisms of the system directed by Mill, Littré, Spencer and others. Since the replies are, for the most part, what Comte himself said in widely separated parts of his voluminous writings, the criticisms are thereby shown to be the result of insufficient study of the system. Perhaps it is in some of these replies that M. Lévy-Bruhl supplies the student with the most fundamental insight of the Positive philosophy. As, for instance, where he establishes the unity of Comte's thought by showing that the positive spirit demands a combination of the objective and subjective

methods. Through the latter alone can the mind apprehend those encyclopædic laws which are to unify that wider whole of which the particular sciences are merely members. So long as Positive philosophy is in the process of formation it must go from the world to man. Once the Positive method has become universal, when Sociology is established, the demand for logical unity makes it necessary to take man for the centre. "Referred to humanity," says Comte, "our real knowledge tends towards entire systematisation."

Finally our author endeavours to show that this Positive system occupies a natural position in the evolution of philosophy. It does not oppose but rather "transposes" previous doctrines. In the 'conclusion,' the author gives a list of these transpositions, which, though perhaps on some points unconvincing, serve to illustrate that, in his continual effort to substitute the relative point of view for the absolute, Comte yet remains faithful to his maxim, "We only destroy what we replace".

The English-speaking public will welcome Kathleen de Beaumont-Klein's most faithful translation, since it puts within their reach M. Lévy-Bruhl's valuable exposition of Comte's voluminous writings.

MAUD LIGHTFOOT.

Human Nature and the Social Order. By CHARLES HORTON COOLEY. New York: Charles Scribner's Sons, 1902. Pp. 413.

Mr. Charles Horton Cooley, according to the title page of this volume, is Instructor in Sociology in the University of Michigan, and unlike some modern American writers on social subjects he puts forward his ideas in a simple lucid idiomatic English style. One great recommendation of Mr. Cooley's book is this: that it is always easy to know what his ideas really are and what he is driving at. On this account alone and apart from its other merits Mr. Cooley's volume is readable from beginning to end. The central idea of Mr. Cooley's work is not new, but it is put before the reader with unusual clearness, sanity and precision. This central idea is that Society and the Individual are different aspects of the same thing, and that we misunderstand both Society and the Individual when we look at them apart from each other or set them up in opposition to each other. We can only know what an individual is when we consider him as a member of a social whole, and, on the other hand, we can only know what society is when we consider it as composed of concrete individuals. Both the individual and society are abstractions when considered apart from each other: the only reality in Mr. Cooley's opinion is human life, which may be considered, he says, either in an individual aspect or in a social, that is to say, general aspect: but is always as a matter of fact both individual and general. The antithesis of society *versus* the individual is in Mr. Cooley's view false and hollow whenever it is used as a philosophical statement of human relations. It follows from this that the political doctrines of socialism and individualism are both resting on a false conception of life, the only difference between them being that the socialist believes the collective force should win whilst the individualist holds the opposite opinion. Mr. Cooley's view is that neither should win, that individualism and sociality are complementary aspects of the same thing, and that the true line of progress is from a lower to a higher type of both, not from the one to the other. This higher type of human life is to be attained, not by the suppression of certain faculties and the exaltation of others, but by the harmonious development of all. On some points we should like if space permitted to break a lance with Mr. Cooley, but although we may be

inclined to differ from him on certain questions, we are glad to admit that he has written an interesting and stimulating book.

W. D. Morrison.

The Mysteries of Mithra. By Franz Cumont. Translated by Thomas J. McCormack. Chicago: The Open Court Publishing Company.

Prof. Cumont is well known by his large work *Textes et monuments figurés relatifs aux mystères de Mithra*, and this volume, he explains, is a reproduction of conclusions printed at the end of the first volume of that work. M. Renan declared that Mithraism, but for Christianity, would have been the religion of the West. At the beginning of the Christian era Mithraism suddenly appeared in the valleys of the Danube and the Rhine, and even in Italy; and while it is true to say that it disappeared before Christianity, it is also correct to state that it was succeeded by Manichæism. For a time, however, it seemed as if Mithra would conquer; and for the student of history and of ethics a study of Mithraism is not without interest.

According to Prof. Cumont the success which Mithraism gained was due, in great part, to "the vigor of its ethics, which above all things favoured action". "The conviction," he says, "that the faithful ones formed part of a sacred army charged with sustaining with the Principle of Good the struggle against the power of evil was singularly adapted to provoking their most pious efforts". In regard to doctrine the explanation is offered that "the worship rendered to the Planets and to the Constellations, the course of which determined terrestrial events, and to the four elements, whose infinite combinations produced all natural phenomena, is ultimately reducible to the worship of the principles and agents recognised by ancient science, and the theology of the Mysteries was, in this respect, nothing but the religious expression of the physics and astronomy of the Roman world".

Le sentiment religieux en France. Par Lucien Arréat. Paris: Félix Alcan, 1903. Pp. vi, 158.

As the author himself remarks, the best part of this volume is the appendix, in which he has printed a selection of fifteen answers to a *questionnaire* respecting the state of religious sentiment in France. Such documents can never fail to be interesting, and, when the questions are skilfully put and the answers judiciously interpreted, they may yield much instruction. Furthermore it is growing very plain that the era of the merely speculative and *a priori* attitude towards ethical, religious and æsthetic problems is past, and that their profitable treatment presupposes the collection of extensive statistical data in order to attain a knowledge both of the range and character of the varieties of sentiment and of their qualitative frequency in the various social and national environments. In other respects, however, M. Arréat's book is disappointing. The general discussions which occupy most of it are slight in texture and deficient in exact data. He does not even state the wording of his *questionnaire*, and no figures are given either as to the number of the answers which form his inductive basis, or as to the distribution of the various types. The chief conclusion drawn is that while asceticism is apparently growing rarer, it would be hazardous to assert that the religious sentiment is either weakening or maintaining its strength. In view of this difficulty of interpretation it would have been well if M. Arréat had given us fewer reflexions and more documents.

F. C. S. Schiller

Psychology and Common Life: A Survey of the Present Results of Psychical Research with Special Reference to their Bearings upon the Interests of Everyday Life. By F. S. HOFFMAN. New York and London: G. P. Putnam's Sons, 1903. Pp. viii, 286.

This little volume is made up of ten popular essays or lectures on the topics: Brain and Intelligence, Attention, Memory, Hallucinations, the Mind in Sleep, Hypnotism, the Mind and Disease, Christian Science and the Lourdes Miracles, Mind-reading and Telepathy, and the Secondary Self. It belongs to the class of books that is the despair of the professional psychologist. Regarded from the scientific standpoint, it is utterly unsystematic; it abounds in minor inaccuracies; it is uncritical; it is not always even grammatical. Its reading has been grievous to the present reviewer.

Only—the book is evidently not meant for the psychologist. It is intended to arouse an interest in psychology among the educated public at large. The author is making an honest effort to give a readable account of certain aspects of psychology that he deems of especial interest to the layman. It is a pity that he does not know more, and that he has not the habit of accuracy; but his work may, after all, do what it aims to do, and so pave the way for the reading of better books later on. At any rate, it is a work about which the layman's judgment should be consulted equally with the psychologist's.

E. B. T.

Fatigue. By Prof. A. MOSSO. Translated by MARGARET DRUMMOND, M.A., and W. B. DRUMMOND, M.B., C.M. London: Swan Sonnenschein & Co.; New York: G. P. Putnam's Sons, 1904.

This translation of Mosso's well-known book on *Fatigue* has been not only sanctioned but revised by the author. It is an improvement on the original in that exact references are given to passages quoted from other writers. The rendering is admirably done. We have noted only one passage where the translation might have been improved by keeping more closely to the original.

"Je me suis abîmé par sept années d'études folles et désespérées" is really not the same as "I insanely destroyed my health by seven years' study". It was not the fact of studying but the foolish and rash method of study which did the harm.

JOHN EDGAR.

Le Goût (Bibliothèque internationale de psychologie expérimentale). By L. MARCHAND. With 33 Illustrations. Paris, 1903. Pp. 328. Price 4 francs.

This book deals very largely with the physiological aspect of the subject. It opens with an introductory chapter wherein the author quotes approvingly the view that "the specific sensibilities of hearing, vision, taste and smell have been evolved from tactual and thermal sensibility". The treatment of the question of specific nervous energy (p. 79 ff.) and the chapter entitled "Taste from the psychological point of view" offer further examples of such crudities. Of the twelve remaining chapters nine are devoted to the morphology and nervous connexions of the organs of taste. The best-written parts of the book are those dealing with the minute anatomy of the tongue. Here the author evidently finds himself on familiar ground, and is less reticent in criticising dis-

cordant views and in advancing his own than elsewhere. He states (p. 54) that taste buds are rarely met with on the soft palate and epiglottis, where nevertheless sensibility for flavours exists, and that they are far less frequent at the tip and sides of the tongue where sensibility for sweet, salt and sour tastes is most acute, than at the base of the tongue where the sensibility for bitter tastes is keenest. And he suggests that the taste-buds are affected only by bitter substances, while the sensations of sweetness, saltness and sourness are developed in other end-organs of less complex character. This suggestion, if well grounded, is worthy of attention, for the bitter sensation differs in several respects from the other sensations of taste. In the first place, it takes longer to develop and persists for a longer time. In the second place, it is the only sensation which can be produced by mechanical stimulation of the tongue –at its base. This the author apparently denies (p. 130). And thirdly, the bitter taste does not produce contrast-sensations with the other tastes, as the latter do among themselves. The author makes no reference to Kiesow's work in this and many other directions which have considerable psychological interest. He devotes over fifty pages to the perplexing controversy as to the path of nervous impulses from the tongue to the brain, but his few lines of summary do little to clear up the difficulties. We note several instances of mis-spelling in the names of foreign writers.

C. S. M.

La Fonction du droit civil comparé. Par E. LAMBERT. Paris: Giard et Brière, 1903. Pp. 927.

M. Lambert is a professor of the history of law at the University of Lyons, and the present volume is a learned and elaborate work on the value of a scientific study of comparative legislation. It contains a good many sociological observations which would be interesting to the readers of MIND, but it is in the main a book for scientific students of law.

Gesammelte Aufsätze zur Philosophie und Lebensanschauung. Von RUDOLF EUCKEN. Leipzig, 1903. Pp. 242.

These essays aim at illuminating special problems and personalities from the standpoint which the author has endeavoured to make clear in his *Kampf um einen geistigen Lebensinhalt*, 1896, and in his *Wahrheitsgehalt der Religion*, 1901. Any one making his first acquaintance with Prof. Eucken will form a just idea of his philosophy from the essays on "The Vindication of Ethics," on "The Germinating Powers in the Moral Life of To-day," and on "The Relation of Philosophy to the Present Religious Movement". Others will be more interested in the study of those thinkers, Goethe, Fichte, Fröbel, Steffensen, etc., intercourse with whom has helped to fashion the *Lebensanschauung* which is sometimes felt rather to overshadow than to illuminate the various subjects. There is an appendix in which a very gloomy view is taken of the present condition of philosophical instruction in Germany, and suggestions are made for its improvement.

Less known in this country than he deserves, Prof. Eucken has many in Germany to whom his work appeals as both original and stimulating. The latter it certainly is, but it seems to exhibit, along with excessive dependence on and confidence in the work of Kant, something of a reversion to the pre-Hegelian Romantic, and like it to fall short of conviction because lacking a secure foundation in the philosophy of Nature.

The keynote of Prof. Eucken's position is the central importance of the ethical problem, which may be said to become with him, as with Steffensen, cosmical and super-historical. While speaking with profound admiration of the classical period of German literature and philosophy, he considers the glad, restful assurance of its outlook, which found its best expression in Krause's term Panentheism, to be past recall. Our modern life is rendered hideously discordant because of the "*erbitterte Kampf zwischen zuständlichem und gegenständlichem Leben*," and on us lies the task of effecting a synthesis which, while fully recognising the actual complications and contradictions of life, gets beyond them to a depth in which subject and object relinquish their enmity, man and cosmic nature unite in a common labour. At present the antagonism within the work of the spirit is rendering man a mere co-existence of soulless toil and high-pitched but empty reflexion. Our culture possesses no world of thought embracing the human soul, no supreme ideal of life; it cannot give morality a form adequate to its universal nature. The sharpness of the conflict is shown by the discrepancy between the ideals of Religion and of Work. By the one man's emotional nature is passionately excited and he is taught to regard himself as the highest end in itself; by the other it is tuned as low as possible and he is treated as a mere means for a soulless process of culture. As for Work, the most thriving of our ideals, all its triumphs have not prevented the workers themselves from becoming smaller, shallower, more discontented, as increasingly minute specialisation allots to the individual a mere fragment of some special aspect of external reality as his life's work, engrossing his whole attention, while leaving his inner nature to atrophy into a dead and empty background. We are beginning to feel the want of proportion between the feverish activity of Work and its result in happiness and spiritual life; to recognise the danger of being transformed into highly complicated machines, of being mastered by an externally directed activity devoid even of satisfactory material results. The claim for the emancipation and development of the individual is the complement of, and the reaction from, the social idea, in itself an effort to sublimate the ideal of Work and bring unity into our moral endeavour, but fatally neglectful of inner problems. Now, it is possible to take up as critical an attitude to a purely social morality as do its neo-romantic and sophistic opponents, and yet, at the same time, hold in honour a more universal idea of morality. Such heroes of the moral idea as Plato and Kant teach us that morality means more than working for the benefit of society, that it is, above all, a personal matter for the man himself, an oppressive problem of his own being, a desire to overcome an intolerable inner discord, and attain a different fundamental relation to reality. It is an effort to assert and realise one's spiritual being as against the indifference and opposition of the world, which, apart altogether from professional pessimism, it is impossible to reverence as the sacred work of pure reason. And why should we dread the free creative activity of a rational being, the effort to unfold one's unique nature and express it in every action? Prof. Eucken quotes the saying of Fröbel, "*Der Mensch schafft ursprünglich und eigentlich nur darum, damit das in ihm liegende Geistige, Göttliche sich ausser ihm gestalte*," and shows how in Goethe the artist and thinker knew himself to be at the centre of reality, carrying the work of nature further. He offers an impressive synthesis of subject and object, a union of freedom and truth. It is only where it seeks to overcome the contradictions of these that our age reaches a creative height.

It will be seen that Prof. Eucken would not accept Hegel's dictum that "*der Mensch ist die Reihe seiner Handlungen*". What a man is more

than his contribution to the work of culture he admits to be obscure; but it would not be so impossible as it is for him to be sublated in his Work, if there were not in him a core superior to it, which a vital metaphysical instinct forces him to assert. If the subject does not succeed in developing from within to a world, a universal spirituality, making it superior to every external world and to all work, then its cause is lost and the whole modern movement a grandiose mistake. In the microcosm we must discover a macrocosmic life; the subject must appear as the point of emergence of a new reality; the spiritual life must rise above its present conflict to union with divine Being, and our world be known as the abode of spiritual powers. But this requires a clear separation of the creative life of the spirit from the empirical life of the soul. As a creature of nature, man, into his very soul, is a product of her necessity; alone the moral sphere shows, in form and content, hyperempirical origin and powers. It is only the unseen order to which man as a spiritual being is related that demands his independent co-operation and gives him the power to rely upon his own personality, and, if need be, oppose the whole world. This spiritual ground of our life, to-day obscured, must be illumined and developed, and that can never result from natural circumstances; it depends, as ever, on the free action of man.

Prof. Eucken is very much in earnest, and says what he has to say forcibly and strikingly. To most his philosophical speculations must appear to rest on a very insecure basis and to evaporate in mysticism. No doubt he awaits the "testimony of the spirit and of power and fruitfulness for life" with confidence. We, who do not quite share this confidence, yet follow him along his somewhat unusual philosophical route with interest and profit.

DAVID MORRISON.

Die Soziale Frage im Lichte der Philosophie. Von Dr. LUDWIG STEIN; Zweite Auflage. Stuttgart: Verlag von Ferdinand Enke, 1903. Pp. xvi, 598.

If we may use a German word in description of this work we should say it is essentially *grossartig* in its conception, and indeed in its dimensions. There is first an introduction about the social question in general, and philosophy and sociology and evolution and history, and the relation of all these to each other. Next, part i. deals with primitive forms of social life and the historical development of the principal social categories. In part ii. we have a history of social philosophy from the time of the Greeks downwards. And, finally, part iii. develops the author's own system of social philosophy.

This system is characterised by the fact that the author accepts quite uncritically and unreservedly the popular antithesis between Altruism and Egoism, and thus shuts himself off from the possibility of any really philosophical solution to the problems of social life. At best it can be but a compromise, an equilibrium, between the interests of the individual and those of the race; and inasmuch as the interests of the race are to his mind paramount, progress consists in putting heavier and heavier shackles upon individuality. Every law, every social sanction, is regarded as a limitation only; the possibility of its being a positive aid to the development of the individual does not suggest itself; hence he arrives at the conclusion that *Unser ganzes Kultursystem ist letzten Endes ein Zwangsystem.* Thus the only expedient for the social philosopher is so to educate people through religion, morality, art, etc., that they will

accept the claims of the race as predominant, and relinquish their individual freedom without too much regret.

Dr. Stein is widely read, but shows little practical knowledge of the social difficulties for which he offers remedies. As usual the State is to intervene and achieve at every point; to provide work for the unemployed, to ensure an "Existenz-minimum" to all, and even to find remunerative intellectual employment for the "educated proletariat"; but we find no consideration of the serious economic difficulties involved in such a policy. This intervention of the State would not, he thinks, be necessary if the workmen on the Continent could achieve as much through "self-help" as the English working-men; but instead of considering the significance of this phenomenon, he brushes it aside with what is surely in this connexion a trivial remark, that the Englishman's talent for organisation is inherited and cannot be inoculated into the Continental working class.

How far the author's representation and interpretation of social conditions and movements in Germany are trustworthy it is difficult for a foreigner to say; with respect to England he has hardly succeeded in understanding what are now the really important aspects of social and economic life.

H. Bosanquet.

Macht und Pflicht. Eine natur- und rechtsphilosophische Untersuchung. Von Anathon Aall, Dr. Phil. Leipzig: O. R. Reisland, 1902. Pp. x, 341.

The name of Dr. Aall is already favourably known for his work on the history of the idea of the Logos. His present book is of a very different character. It is an attempt to trace the connexion between the ideas of power and duty—an interesting subject, and one that has already been approached by different writers from very different sides. One may recall, for instance, the important part played by the conceptions of δύναμις and ἐνέργεια in the Ethics of Aristotle, the conception of power in the system of Hobbes, Carlyle's constant iteration of the doctrine that right is might, Nietzsche's gospel of force, and the emphasis laid by most idealistic writers on the realisation of human faculty. All these seem to involve, in different ways, the idea that there are certain active powers inherent in human nature, and that the working of these out is the basis of the moral life. It would be interesting to try to work out thoroughly, in the light of modern scientific thought, the implications of this idea of human power, and to show exactly how the moral life is to be interpreted by means of it; and this appears to be the task that Dr. Aall has set for himself. In contrast to the Kantian dictum "Thou oughtest, hence thou canst," he urges that the 'ought' should rather be regarded as resting ultimately on a 'can'; and that all human duty may best be interpreted as the call to realise possibilities. The way in which this is developed is both learned and interesting; yet the book as a whole hardly appears to achieve the object at which the author aims. There seems often to be a want of definiteness and logical cogency in the views that he puts forward. It is difficult to gather precisely what he understands by power, and how exactly he conceives the idea of duty to emerge from it. The impression left in the end is that he has suggested a number of interesting points, rather than that he has fully thought out a coherent doctrine. The phrases that he gives as motto aptly sum up the general spirit and purport of the work: "From him who can do something, much is required; from him who can do much,

the utmost is expected". It is a book 'to be chewed and digested'; and one can only regret that it has not been more skilfully carved.

J. S. M.

Geschichte der Strafrechtlichen Zurechnungslehre. Von Richard Loening, ord. Professor der Rechte zu Jena. Erster Band: *Die Zurechnungslehre des Aristotles.* Jena: G. Fischer; London: Williams & Norgate, 1903. Pp. 359.

This is the first volume of a work which is to embrace the whole history of the doctrine of criminal responsibility. In recent years a great deal of discussion has taken place as to the nature and extent of criminal responsibility, but Prof. Loening considers that the discussion so far has led to no satisfactory results. In his view the only way to arrive at a satisfactory solution of the problem is by an examination of the history of the current doctrine of criminal responsibility. The roots of this doctrine go back to Aristotle whose conceptions of moral responsibility were transferred by jurists into the domain of criminal law, and exercised a far-reaching influence on judicial doctrine. The present volume then is an exposition of Aristotle's doctrine of moral responsibility looked at in all its aspects—an exposition Prof. Loening tells us which has never been attempted before. According to Prof. Loening Aristotle's doctrine of responsibility stands in the closest connexion with his whole system of philosophy and cannot be understood without constant reference to it. This fact leads Prof. Loening to commence his exposition with an account of Aristotle's psychology and ethics, and in the treatment of these subjects he is compelled at many points to part company with the accredited expositors of the Aristotelean system. Aristotle's conception of the Good he considers has not hitherto been properly explained by modern scholars, and he mentions several other Aristotelean ideas which he considers have been misinterpreted by his predecessors. One great merit of the book is that the author always gives the sources on which his reasoning is based and it is possible at every step to check his conclusions by a reference to the materials on which they rest. It is safe to say that Prof. Loening's work is a real and conscientious contribution to our knowledge of Aristotle.

W. D. Morrison.

I Dati della Esperienza Psichica. Per Francesco Del Sarlo. Florence, 1903. Pp. 425.

The object of this work is to answer the question whether psychology should take rank as the fundamental science of philosophy, and as such giving the key to all knowledge, or whether it should be co-ordinated with the other branches of natural knowledge, with such sciences as physics and chemistry, having for its subject-matter the co-existences and successions of a particular class of phenomena called states of consciousness, and studying them according to experimental methods the same as those applied to the phenomena of the visible world.

As might be expected from his known spiritualistic opinions, Prof. Del Sarlo decides against the latter view, against the positivist method so much in vogue at the present day. He divides its adherents into three schools: the associationists, represented by Bain and Mill; the psycho-physicists, represented by Wundt; and the evolutionists, represented by Herbert Spencer and his successors. Associationism is disposed

of with little difficulty, having been sufficiently discredited by the criticisms of the experientialists themselves—criticisms of which a lucid summary is given in these pages. Nevertheless, Prof. Del Sarlo argues, a little mischievously, that if psychology is to be studied according to the methods of physical science, associationism under one form or another is the principle on which it must inevitably be constituted. For our systematised knowledge of the objective world simply amounts to a grouping of its phenomena under laws of co-existence and succession; and it is such laws that the associationist undertakes to ascertain. Wundt's psycho-physicism professes indeed to supply us with a new and higher principle, under the name of Will, by which the chaotic contents of consciousness are reduced to order, guided into particular channels, and wrought into permanent systems of conduct and belief. But by discarding the doctrine of an immaterial soul as the unifying centre of psychic life, Wundt leaves this so-called Will without any fulcrum whence to exercise its control. It is in fact no more than a phenomenon like another, a mere psychic incident invested with a spurious personality involving powers of foresight and selection such as belong rather to intellection than to volition. Finally, evolutionism accounts for all manifestations of mind from the lowest to the highest as modifications of elementary sensibility organised by selection and heredity, as the result of an age-long struggle for existence. But—besides not explaining the initial fact of sensibility—this method has the disadvantage of approaching the study of consciousness through the study of its material substratum about which we know considerably less than we do about mentality itself. Indeed we may expect self-consciousness to throw more light on the nervous processes than it receives from observations made on them.

After this preliminary survey the author proceeds to a review of what has actually been done towards collecting and analysing the data of consciousness on what he calls the naturalistic method; and the result at which he arrives is that modern psychology has totally failed to account for the higher mental developments, for the way in which our knowledge of reality is acquired, for the way in which our actions are directed towards rational ends. After all the resources of introspection and experiment have been exhausted we are left with nothing but a series of irresoluble states of consciousness, each qualitatively unique, unconnected with one another, and offering no sort of resemblance or analogy with the objective world which they represent and reveal. Logically the whole of knowledge may be analysed into its component parts, and its evolution may be exhibited as the compounding and recompounding of simple elements into organic wholes. But the processes themselves of perception, comparison, judgment, and reasoning absolutely defy analysis; and all attempts to account for them as mechanical processes are accounted for come to no more than the substitution of a description for an explanation. And the same criticism applies to our ideas of time and space. It is possible, particularly as regards space, to enumerate the simple experiences by which they are suggested and the conditions under which the final synthesis is accomplished. But the synthesis itself is a spiritual act, amenable only to the laws of spirit.

Those laws, according to Prof. Del Sarlo, involve ideas of value and purpose which naturalism ignores. The whole evolution of consciousness, whether intellectual or volitional, is directed towards an end and cannot be rightly interpreted except by the teleological method. There are tendencies at work among ourselves which no doubt will find their account in such a mystical solution of the psychological problem; and

Prof. Del Sarlo's work may be recommended as a valuable auxiliary to their professors. But whether the cause of sound knowledge can be served by what is almost undisguisedly a retrogression to the standpoint of Aristotle may be questioned. A closer consideration of this important treatise must be left to psychological experts, who will find much to interest them in the acute criticism brought to bear by Prof. Del Sarlo on a very extended course of reading in the most modern literature of the subject. I must unhappily add that it is conveyed in a style so abstract, dry and repellent as to make the book almost unreadable except by an enthusiast or a drudge.

A. W. Benn.

L'Istituto Famigliare nelle Società Primordiale. By Giovanni Amadori-Virgili. Bari: G. Laterza & Figli, 1903. Pp. 266.

One of the most difficult problems confronting the student of human institutions is the origin of the rules regulating marriage. It is a subject which was raised about forty years ago by McLennan in his work on Primitive Marriage, and in spite of the fresh facts which have accumulated since that time, and the fresh speculations which have taken place concerning the interpretation of these facts, the character of primitive marriage is still a subject of dispute. Are the rules relating to marriage which we now find in existence among the lowest class of savages the development of an antecedent condition in which the solitary male as Darwin supposed was at the head of a group of females, or were all marital relationships preceded by an antecedent period of promiscuity? If marriage relationships were preceded by a period of promiscuity how did these relationships gradually arise? If, as Mr. Atkinson in his recent book on Primal Law supposes, the instinct of sexual jealousy has always prevented sexual promiscuity in the human group, how have marriage laws developed on the assumption that the primæval family was a little group of women and children with one man at the head of it and a number of younger men hanging on its outskirts? These are problems which it is to be feared will never be solved by the production of facts. The origin and early development of marriage will always remain in the nature of a hypothesis and the most plausible solution will always be more or less of an ingenious guess. A recognition of these facts does not prevent us from giving a cordial welcome to Sig. Amadori-Virgili's excellent little book on the Family in Primordial Society. Sig. Amadori-Virgili has made a very careful and comprehensive study of almost all the best literature on the subject, and his work is much more than a mere compilation. At the same time it does not profess to be a complete treatment of the subject. It is rather an exposition of the general lines and principles on which the subject should be treated. Among the principles which the author considers should be laid down as the basis of investigation into the origin and development of the family, he mentions a rational limitation of the ethnographic method, some criterion for the appreciation of positive facts, and a due recognition of all the antecedent conditions producing these facts. The first part of the book, consisting of three chapters, is devoted to an exposition of the author's method of treatment. His principles are set forth with great clearness and cogency, and future writers on the family will have to take account of them. The second part is an application of the author's method to an examination of the primitive forms of family life. Sig. Amadori-Virgili's book is to be cordially commended to the English reader as the work of a well-informed, painstaking and scientific thinker.

W. D. Morrison.

Saggi di Filosofia Sociale e Giuridica. By GIUSEPPE CIMBALI. Roma: Fratelli Bocca; and London: Williams & Norgate, 1903. Pp. 279.

Giuseppe Cimbali is a well-known professor of law in the University of Rome, and the present volume is a collection of essays which he has contributed during the last ten years to Italian Reviews. He tells us that he considers these essays to stand in the same relations to more elaborate works, as torpedo-boats do to men-of-war: that is to say, they are of small size and seem of little moment, but are not on this account of less value to an author in the controversies in which he finds himself from time to time engaged. Prof. Cimbali's essays are devoted to a discussion of contemporary legal and social problems and, although somewhat wordy in places, are very good specimens of modern Italian polemics. The opening essay is a criticism of contemporary social materialism and an exposure of the fallacies which Prof. Cimbali considers to underlie its assumptions. Other papers are devoted to discussions of Herbert Spencer's philosophy; to a consideration of the relations between the Papacy and Socialism; to the Evolution of Law; to the struggle of classes and the development of civilisation; to civil law and the working classes, and to the new conceptions of penal law enunciated by such writers as Lombroso and Ferri. The essays are so varied in character and subject that it is impossible in this brief notice to examine them in detail. But they may be commended to all who take an interest in the idealist side of modern Italian thought. An article of special interest is the essay on Tommaso Natale as a precursor of Beccaria: in this essay Prof. Cimbali shows that many of the most characteristic thoughts of Beccaria were anticipated by his little-known compatriot Natale.

W. D. MORRISON.

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Ossian's *Lebensanschauung.*

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Dr. Max Ersturger, *Untersuchungen über die Bedeutung der Deszesdenztheorie für die Psychologie.*

Max Dressler, *Die Welt als Wille zum Selbst: eine Philosophische Studie.*

Gustave Rodrigues, *L'Idée de Relation: Essai de Critique Positive.*

VIII.—PHILOSOPHICAL PERIODICALS.

Philosophical Review. Vol. xii., No. 4. **F. J. E. Woodbridge.** 'The Problem of Metaphysics.' [If we set out, as metaphysicians, upon the quest for the definition of reality, we come in order upon the concepts of individuality, continuity, purpose, potentiality, chance. "The complete definition of these concepts would be a very close approach to the complete definition of reality." They are to be regarded as ultimate and underived; yet, as a matter of fact, they exist together and supplement one another. Reality is thus "a term which covers ultimate differences in supplementation". To say this is not to elevate the imperfections of knowledge into a test of the constitution of the real, but simply to admit that "if there are certain conditions which must be fulfilled in order that knowledge may be knowledge, it is the constitution of reality which determines these conditions".] **J. H. Hyslop.** 'Problems of Science and Philosophy.' [A criticism of Comte's serial and Spencer's logical method of classifying the sciences, and an attempt at "a logical and a serial classification of the sciences or problems of human thought and action that will recognise both territorial and relational facts at the same time". There are three great groups of sciences: the phenomenological, the ideological, and the ætiological. The existing sciences and spheres of speculation are arranged, serially and logically, under these headings; the arrangement is confessedly ideal, but comes as close to actual fact as the use of words permits.] **F. Thilly.** 'The Theory of Induction.' [(1) What is the nature of the process called induction? "In induction we infer that because a certain thing is true of a certain case or cases, it is true for all cases resembling the others." Induction is not limited to causal relations; it is still induction if we do not understand the reasons or see the so-called necessary connexions. (2) What is the validity of the process? Induction may be proved by assuming the law of uniformity; but this proceeding is apt to land us in a circle. In the last resort, "I have no other warrant for inferring that a combination of qualities will recur than the feeling of expectation that it will do so".] **A. Gehring.** 'The Expression of Emotions in Music.' ["It is not of the essence of music to express emotions; it need convey no meanings; and its effectiveness, so far as apparent, flows entirely from the mere tones by themselves and their combinations." Expression may be used in at least three senses. It may be expression of direct embodiment, representation, denotation, content: this is merely an incidental and contingent factor in music. It may, again, be expression of indirect embodiment or connotation: this, too, is only incidental in music. It may be, lastly, an expression of parallelism, contagion, or sympathetic arousal. Here the contention of the expressionists is more plausible; music without such expression might, perhaps, be "a dry and quasi-mathematic, intellectual pastime".] Reviews of Books. Sum-

maries of Articles. Notices of New Books. Notes. Vol. xii., No. 5. **W. Smith.** 'The Idea of Space.' ["Discrimination is the function of space, or space is the discriminating function of thought." And since space means diversity of conscious states, and diversity is an all-pervasive principle, spatiality is characteristic of all conscious experience. As regards objectivity, space is a conscious experience, and can be nothing else. On the other hand, the universe, so far as it is knowable, is made up of conscious states, which are probably, like ours, spatial; the universe of objects has therefore spatiality; and in this sense space is objective. Some other philosophical problems relating to the space idea are discussed as corollaries to this view.] **I. King.** 'Pragmatism as a Philosophic Method.' [Statement and criticism of the doctrines of Peirce and James. "Thought is an organic part of experience as a whole, considered as an active process; and hence the question as to *mere* effects is, to say the least, unnecessary. The real point of interest is the relation of the consequences of any thought to the larger whole of experience, the sort of situations that produced the thoughts, and the function of the latter in the onward movement of the process."] **C. M. Bakewell.** 'The Philosophy of Emerson.' [There are three chief phases of Emerson's philosophical attitude: "(1) the inadequacy of every finite form of expression to reveal the fulness of truth, the inadequacy of every finite deed to realise the aspiration of the soul, the manifoldness of truth and the infinity of the soul; (2) the supreme and sole absolute reality of spirit; and (3) the absolute freedom and integrity of the individual human self, the sovereign worth of character".] **A. R. Hill.** 'Proceedings of the Third Annual Meeting of the Western Philosophical Association, held at Iowa City on April 10 and 11, 1903.' Reviews of Books. Summaries of Articles. Notices of New Books. Notes. **J. M. Baldwin.** 'Development and Evolution.' [Reply to Angell's review in the preceding number.]

Psychological Review. Vol. x., No. 4. **J. R. Angell.** 'Studies from the Psychological Laboratory of the University of Chicago.'—IV. **R. L. Kelly.** 'Psychophysical Tests of Normal and Abnormal Children: a Comparative Study.' [The present study shows, in general, that approximate uniformity in psychical reactions is a characteristic of the healthy consciousness, and that the abnormal child is deficient in intensity and not in extent of psychical function. Conclusions are drawn, in particular, regarding the relative development of touch and sight, and of the grosser and finer bodily movements; the rise of motor co-ordination and motor imitation; fatigue; tendency to rhythmisation; children's imagery, etc.] **J. P. Hylan.** 'The Distribution of Attention.'—I. [Discusses certain selected portions of the literature, and gives an account of experiments on the counting of simultaneous series of similar and disparate impressions; on reactions with concentration and distribution of attention, and (in part) on tachistoscopic letter exposures.] Discussion. **B. Bosanquet** and **J. M. Baldwin.** 'Imitation and Selective Thinking.' [Continues the discussion on imitation *v.* identity and difference, and the theory of selective thinking. A brief consideration of pragmatism is included in the present instalment.] **M. F. Washburn.** 'Notes on Duration as an Attribute of Sensations.' [The psychological problem of duration is fourfold. It may concern the methods of measuring the objective duration of mental process (reaction experiments); our simple consciousness of present duration; the conditions which enable an idea to represent a certain objective duration in past or future time, or the subjective factors upon which our estimates of present duration depend (time sense). Discussion, in the light of these distinctions, of duration as the temporal attribute of simple sensation.] **W. Lay.** 'Imagery.'

[Criticism of Nelson's paper on the visual estimate of time, *Psychological Review*, September, 1902.] Psychological Literature. New Books. Notes.

American Journal of Psychology. Vol. xiv., No. 2. **B. R. Andrews.** 'Habit.' [(1) *The structural differences between the habitual and the non-habitual consciousness.* (*a*) There are differences of pattern or arrangement of processes. The processes in the habitual state are meagre, uniformly indistinct, and fused into an associative series; those in the non-habitual state bulk large, are of two degrees of clearness, distinct and indistinct, and are joined together by attentive selection and rejection. (*b*) The habitual consciousness has, as distinguishing process, the mood of familiarity with partly habituated experiences, and of indifferent ofcourseness with those completely habituated. The non-habitual consciousness has, as its characteristic process, the experience of directed effort. Affective processes are relatively strong in non-habitual functioning, and pass to indifference under habituation. (2) *Classification.* Habits are specific, providing for the re-experience of past processes; and general, shaping present experiences in accord with past. (3) *Development.* Favouring conditions are repetition, attention, intensity of the experience, and plasticity of the nervous system.] **J. W. Baird.** 'The Influence of Accommodation and Convergence upon Perception of Depth.' [(1) Historical survey of the literature of the perception of depth, from Da Vinci to Arrer, Dixon and Hillebrand. (2) Experiments with a perfected form of Arrer's apparatus. The conclusions are, in the main, those of Wundt and Arrer. On the basis, however, of the introspective reports of an observer whose oculomotor sensations were particularly keen, and of another whose function of accommodation was impaired, the writer is able sharply to differentiate the primary criteria of the depth perception in monocular and binocular vision: the former depends on accommodation, the latter on convergence sensations. The experiments were made, not only in monocular and binocular vision, but also with both abrupt and gradual changes of distance, and secondary criteria were most carefully eliminated; the results are remarkably uniform.] **E. J. Swift.** 'Studies in the Psychology and Physiology of Learning.' [(1) *Tossing and catching balls.* The curve for learning a feat of muscular skill is concave toward the vertical axis. Practice is never steady, but always proceeds by jumps; practice with the one hand trains the other, the gain being due partly to the transference of points of method, partly to the direct co-education of symmetrical parts of the nervous system. The method was worked out by trial and error, without conscious intent. (2) *Learning shorthand.* The previous conclusions are borne out. Overstrain of attention is a hindrance; and the very fact of being tested has an inhibitory effect upon the mental processes involved. (3) *Origin and control of the reflex wink.* The wink is a complex reaction, resulting from visual and auditory impressions, and the final effect is greater than the sum of the separate effects. Moderate fatigue, attention to inhibition, distraction of the attention, etc., have little or no influence upon the reflex. Contraction of muscles remote from the eyes does not greatly reduce the reactions; contraction of muscles near the eyes, and closure of the ears, markedly lessen them. Training in control by contraction of muscles near the eyes appears to be gained by way of reinforcement of general attentional control, and is not carried beyond a certain point by continued practice. The genesis of the reflex is traced in experiments upon infants and young children.] Correspondence. [**J. Jastrow** and **E. B. Titchener** on the length of psychological papers.] Psychological Literature.

International Journal of Ethics. Vol. xiv., No. 1, October, 1903. **A. Henry.** 'The Special Moral Training of Girls.' [The necessity of physical love on both sides as a basis for the marriage relation.] **F. Granger.** 'The Right of Free Thought in Matters of Religion.' [The schoolroom is not the place for a religious propaganda.] **J. A. Ryan.** 'Were the Church Fathers Communists?' [No; not in the full sense of the term.] **G. Rebec.** 'Byron and Morals.' [The underlying strain of scepticism in Byron. Yet "his poetry is not poor but rich in bodyings forth even of positive ideality".] **J. Laing.** 'Art and Morality.' [Decadence in Art connected with decadence in Morality. The emergence of the formula 'Art for Art's sake' marks the beginning of a decline in all artistic movements both ancient and modern.] **W. R. Bendict.** 'Religion as an Idea.' ["The realities that are found in the fully developed man, whose body, mind and feelings are at their highest, are worth more to solve the mystery of the universe than any conceivable application of the genetic method."] **J. D. Stoops.** 'Three Stages in Individual Development.' [The stages (1) of organisation, (2) of a negative, exclusive self-consciousness, and (3) of reorganisation between the individual's growing sense of self and its deeper life are traced also in the development of the life of a society.] **J. H. Seuba.** Discussion —'Empirical Data on Immortality'. [Criticism of Prof. Hyslop.] Book Reviews. Vol. xiv., No. 2, January, 1904. **W. J. Brown.** 'The True Democratic Ideal.' [The enthusiasm for democracy as such is waning; yet Democracy makes towards Humanity.] **T. C. Hall.** 'Relativity and Finality in Ethics.' [The social utility of prompt obedience to particular categorical commands given by external authority on the part of the intellectually immature. But in ethical advance we must come to a stage where, while the finality of moral obligation in general is preserved, the relativity of our ethical knowledge is admitted.] **E. Ritchie.** 'The Toleration of Error.' [Growing indifference to deviations from the orthodox. But this differentiation of belief is a mark of increasing civilisation; monotony is the mark of the savage.] **R. A. Duff.** 'Proverbial Morality.' [Its maxims are negative, unsystematic and of a not very exalted character. Yet if proverbs are often contrary they are also complementary, the one covering just those cases which are exceptions to the jurisdiction of the first.] **S. J. Barrows.** 'Crime in England' [A note.] **J. MacCunn.** 'The Cynics.' [The emphasis laid by the Cynics upon the inward life and their consequent indifference to externals; their cosmopolitanism. But they lacked interest in speculation, and hence their morality is devoid of content.] **W. A. Watt.** 'The Individualism of Marcus Aurelius.' [The great practical defect of 'Marcus'' ethics is that there is no sufficient appreciation of the fact that it is not through the retiral but through the advance of the soul that personality develops.] **H. B. Alexander.** 'The Spring of Salvation.' [Is the Beautiful.] **J. H. Hyslop** and **J. H. Seuba.** Discussion. [Controversy over 'Spiritism' continued from last number.] Book Reviews.

Revue de Philosophie. Août, 1903. **J. Grasset** discusses the proposal of Metschnikoff, *Essai de philosophie optimiste* (Paris: Masson, 1903), to make the moral scope and aim of all life the attainment of natural death, a death, that is to say, without disease or pain or regret, welcome to an organism which has exhausted its utmost capability of holding together: this consummation, Metschnikoff thinks, with precautions, including the extirpation of the hair, of the appendix, possibly also of the larger intestine, might be retarded for one hundred and forty years. **A. Charousset** in a second article concludes that in chemical combination there is no change of the constituent substances; oxygen in com-

bining to form water remains oxygen, and hydrogen hydrogen, the sensible properties of water being simply the resultant of the combined action of the two, according to the second Newtonian law of motion, chemistry in fact being a department of mechanics. In a dialogue, 'La foi naturelle,' **J. E. Aleux** points out that, under pain of utter vacuity of content, the mind must accept some conclusions on evidence that is not absolutely irresistible: this acceptance he calls "natural faith," and finds it to cover the primary data of morality and religion. Among the *Comptes rendus* is an elaborate exposition of Xavier Léon's *La philosophie de Fichte* (Paris: Alcan, 1902). Fichte took his philosophy to be "Kantism thought out over again by one who has quite seized its spirit". But Kant thought otherwise. Under the title, 'Fécondité de la logique,' **Louis Baille** ably maintains the scholastic view of Universal concepts.

Octobre, 1903. The most valuable article is 'L'abstraction Scolastique,' by **Comte Domet de Vorges**, an exposition clear and detailed of the working of the "active intellect" of Aristotle, *De anima*, III., 4, as conceived by the schoolmen of the thirteenth century. 'Recherches sur les signes physiques de l'intelligence,' by **N. Vaschide** and **Mlle Pelletier**, argues the general connexion of size of brain with intelligence, and of size of skull with size of brain, the skull being developed as the measure of the brain at the time when the brain is largest. The skull in fact is to the brain as the nut to the kernel. The brain of an old man shrinks as the kernel of an old nut shrinks within its hard containing envelope. 'La Biologie au Congrès de Médecine de Madrid' has this remark: "Nothing is worse for a paralytic patient than staying in bed. The patient should be taught a number of movements, which often he thinks himself incapable of making, while in fact he comes to execute them after many unsuccessful trials. Cases of muscular impotence are often cases of muscular ignorance." Interesting among the *Comptes rendus* are those on L. Weber, *Vers le positivisme absolu par l'idéalisme;* Jules de Gaultier, *La fiction universelle.*: Lévy-Bruhl, *La Morale et la Science des Mœurs;* also an appreciative notice of the recent Oxford issue, *Personal Idealism.* From the first of January next the *Revue de Philosophie* will appear monthly at the same price as before.

Philosophisches Jahrbuch. Band xvi., Heft 4. **Gutberlet.** 'Der Voluntarismus.' [In this, the first of two articles, the writer after pointing out the two trends already known in Scholastic Philosophy, one setting Intellect, the other Will, in the first place, points out that the latter trend is at present in great vogue amongst all thinkers, and proceeds to attack Schopenhauer and Wundt, the extreme exponents of this tendency, whose conception of a 'blind Will' is an absurdity; and the theory of Losky concerning unconscious Will.] **Schindele.** 'Die Aristotelische Ethik.' [This paper concludes by admitting that Aristotle's Ethic is insufficient as regards man's ultimate goal, duty, conscience, the doctrine of Will, and virtue as the mean between two extremes; also that Aristotle in his ideas on politics and slavery was altogether Greek. This explains the animosity of Luther and other modern writers. Nevertheless, the work remains a *monumentum aere perennius.*] **Klein.** 'Ueber die Wichtigkeit der Psychologie für die Naturwissenschaften.' [The writer continues to point out the doctrine of the three souls—vegetative, sensitive and reasonable, together with the Aristotelian theory of intelligence, which creates an abyss between men and brutes. He then concludes by showing how this knowledge would in many branches of science enable us to avoid gross blunders and absurdities, of which he gives examples.] **Straub.** 'Die Aseität Gottes.' [The writer of this, the second of a series of theological papers, here discusses the question

whether Infinity is the metaphysical essence of the Godhead, and affirms that the highest possible intellectual power conceivable is not that essence.]

Rivista Filosofica. Anno v., vol. vi., Fasc. iv., September-October, 1903. **G. Vidari.** 'Le concezione moderne della vita, e il compito della Filosofia morale.' [Modern conceptions of life range themselves under four great ideals: The ascetic ideal represented by Tolstoi, under whose hands it has become the negation of nature, history, and civilisation; the æsthetic ideal, represented by Nietzsche, and, under a degraded form, by Rudyard Kipling, which ends by inculcating the enslavement of the weak by the strong; the ideal of liberty, represented by Kant, a potent element in the making of modern history, but becoming discredited through its opposition to active intervention in the readjustment of social inequalities: and the ideal of solidarity which takes this readjustment for its task, but has so far neither a very distinct nor a very practicable programme to offer. Prof. Vidari himself proposes what he calls the doctrine of social and civil personalism, *i.e.*, the integral realisation of human personality: referring us for details to his published works in ethical philosophy.] **A. Ferro.** 'La teoria del parallelismo e la teoria dell' influsso fisico.' [There is no valid scientific objection to the theory, always held by the common sense of mankind, that mind and matter react on one another.] **G. Vailati.** 'Di un' opera dimenticata del P. Gerolamo Saccheri (*Logica demonstrativa*, 1697).' [Saccheri is known to mathematicians as the first forerunner of non-Euclidean geometry. Attention is now called to a forgotten treatise on logic containing a generalised expression of the method of reasoning employed by him in investigating the theory of parallels.] **G. Rigoni.** 'Note psicologiche.' [Asserts against Villa that all acts of consciousness imply, and are constituted by reference to a thinking personality, and denies against Leibniz and his followers the doctrine of unconscious sensations.] Rassegna Bibliografica, etc.

IX.—NOTES AND CORRESPONDENCE.

To the Editor of "Mind".

Sir,—I must apologise for sending so late a reply to Prof. Fraser's letter (Mind, N. S., vol. xi., p. 435) concerning my review of his edition of Berkeley's *Works* (Mind, N. S., vol. xi., p. 249). But his letter was not brought to my notice until quite recently, when my attention was accidentally drawn to it. He charges me with a misinterpretation which, he suggests, might have been avoided by "intelligent persons".

The passage in question of Berkeley's "Commonplace Book" is as follows:—

"Mem. Before I have shown the distinction between visible and tangible extension, I must not mention them as distinct. I must not mention M.T. and M.V., but in general M.S., etc.

"Qu. Whether a M.V. be of any colour? a M.T. of any tangible quality?"

Prof. Fraser's footnote reads thus:—

"M.T. = matter tangible; M.V. = matter visible; M.S. = matter sensible. The distinctions in question were made prominent in the 'Essay on Vision'. See Sect. I., 121-45."

I frankly confess my inability to read these lines otherwise than that they mean to infer "M.T." to stand for "matter tangible," etc.

An inquiry into another point touched upon in Prof. Fraser's letter I reserve for a future occasion. But I must take this opportunity to supplement my review, in which I had questioned the accuracy of Prof. Fraser's editorship, adding, however, that the original editions, etc., were, at the time, not within my reach. An opportunity which I have since had, of comparing the "Commonplace Book" with the original MS., has only confirmed my suspicions. The philological principles which appear to have been followed in Prof. Fraser's edition are most unsatisfactory; *e.g.*, in several places he inserts words by which he evidently means to elucidate the sense of the passages in question, without, however, in the least denoting them as his additions. To give but one example, I quote here one passage with those words printed in italics which are not to be found in the original MS.: "Qu. Whether the substance of body or anything else be any more than the collection of *concrete* ideas included in that thing? . . . Of general *abstract* body *we can have* no idea" (i., 20). In order to enable the possessors of Prof. Fraser's edition to correct at least such mistakes as modify the sense of the passages in which they occur, I quote the following:—

Prof. Fraser's Edition.	*Original MS.*
(*a*) Ask a man, I mean a philosopher . . . (p. 16).	(*a*) Ask a man, I mean a Cartesian.
(*b*) . . . as I have proved (p. 21).	(*b*) . . . as I have proved in Green (see p. 19).
(*c*) . . . the words "that a thing" (p. 28).	(*c*) . . . the words "that" and "thing".
(*d*) Wherein, I pray you, does the perception of white differ from white men * * * (p. 28).	(*d*) Wherein, I pray you, does the perception of white differ from white? (The words following, which are illegible, but do *not* begin with "men," form a separate sentence.)
(*e*) An extended may have passive modes of thinking good actions (p. 32).	(*e*) An extended may have passive modes of thinking, not active.
(*f*) . . . other bodies behind those which now seem to touch (p. 32).	(*f*) . . . other bodies betwixt those which now seem to touch.
(*g*) . . . there is an homonymy in the word *thing*, w^{n} apply'd to ideas and volition and understanding and will. All ideas are passive (p. 34).	(*g*) . . . there is an homonymy in the word *thing*, w^{n} apply'd to ideas and volition, understanding and will. All ideas are passive, volitions are active.
(*h*) The difficulty of consciousness of w^{t} are never acted surely solv'd thereby (p. 38).	(*h*) The difficulty of consciousness of w^{t} one never acted, etc., solv'd thereby.
(*i*) . . . regard must not be had to its existence (?) * * * First Book (p. 49).	(*i*) . . . regard must not be had to its existence, at least in the first book.
(*k*) . . . incorporeal spirit, which is omnipresent . . . (p. 54).	(*k*) . . . incorporeal spirit, which is omniscient . . .
(*l*) . . . are displeased with their diseases (p. 56).	(*l*) . . . are displeased with their discovery.
(*m*) . . . we know the mind agrees with things not by idea but sense . . . (p. 58).	(*m*) . . . we know the mind as we do hunger, not by idea but sense . . .
(*n*) . . . use of idolatry, use of Epicurism and Hobbism . . . (p. 59).	(*n*) . . . rise of idolatry, rise of Epicurism and Hobbism.
(*o*) . . . encreated and diminish'd by parts (p. 61).	(*o*) . . . encreas'd and diminish'd by parts.
(*p*) . . . demonstrable ad infinitum (p. 63).	(*p*) . . . diminishable ad infinitum.
(*q*) Depth or solidity now perceived by sight (p. 66)	(*q*) Depth or solidity not perceived by sight.
(*r*) Hereby meere seeing cannot at all judge . . . (p 73).	(*r*) Hereby meerly men cannot at all judge . . .
(*s*) . . . powers of words . . . and simplicity of simile . . . (p. 83).	(*s*) . . . pomp of words . . . and simplicity of stile. . . .
(*t*) The bare passive recognition or having of ideas . . . (p. 89).	(*t*) The bare passive reception or having of ideas . . .

Etc.

It is much to be regretted that, in preparing the new edition, these MSS. were not collated afresh, instead of simply reprinting all the faults of the former edition. I will not encroach upon your space by correcting other errors here, but only add that the MSS. just referred to contain one

volume which was very inadequately described in Prof. Fraser's large biography (p. xii) as follows: "It contains what seems to be a rough draft of parts of the *Discourse on Passive Obedience;* fragments of what was perhaps meant for a sermon on the text, 'Let your zeal be according to knowledge,' a draft of the *Principles of Human Knowledge*, from Sect. 85 to Sect. 145, nearly as in print; a few stray thoughts similar to those in the *Commonplace Book;* some jottings of what may be fragments of letters, in Latin and English, written apparently at Trinity College." What to Prof. Fraser "seems to be a rough draft of parts" of the *Discourse of Passive Obedience* is in reality a complete MS. of that treatise, with some differences from the printed version. What he describes as "fragments of what was perhaps meant for a sermon" is in reality the entire sermon, which is, like the one I mentioned in my review, of greater philosophical interest than any of those included in Prof. Fraser's edition. What he looked upon as "jottings of what may be fragments of letters" are in reality three complete letters, one in English and two in Latin. The latter are not easily legible. But the little trouble of deciphering them is well repaid. For they show the philosopher in correspondence with one of the most renowned scholars of the Continent, and they reveal the earliest recognition which his writings found there. I have published the Latin text with a commentary in the January number of the *Archiv für Geschichte der Philosophie*, to which I refer those interested in the matter.

I am, etc.,

THEODOR LORENZ.

TO THE EDITOR OF "MIND".

SIR,—It is not often judicious to contest the justice of a review, but there is a degree of misrepresentation which compels an answer, lest the author should be deemed to acquiesce in the accuracy of the account that is given. This degree is attained and exceeded by Dr. McDougall in his review of my *Psychology, Normal and Morbid*, in MIND of last January; and I therefore ask you to publish this rectification. I regret that a series of domestic troubles have made it somewhat belated.

In common with other critics, Dr. McDougall objects to my inclusion of reasoning processes as part of the subject-matter of psychology. Of this objection I do not complain. But I am entitled to protest when he gives of the logical portion of the book an account which is not only ludicrously inadequate, but incorrect and misleading. "It would hardly seem to be necessary at this time of day," says Dr. McDougall, "to slay again the syllogism as a normal reasoning process." Perhaps not; but this is not what I set myself to do; nor is it what I did. So far from slaying the syllogism as a normal reasoning process, I have endeavoured to restore it to life. I have upheld it as a perfectly valid, though subordinate and infrequent mode of reasoning. "Or," says Dr. McDougall, "to investigate the mortality of Socrates once more." It may or may not be necessary to investigate this point again, but any one reading this expression of Dr. McDougall's would suppose that the object of my investigation was the same as that of previous investigators, *viz.*, to determine the validity of the reasoning by which the conclusion was reached. His readers will gain no inkling that the result of my investigation is to show that the form

All men are mortal
Socrates is a man
Therefore Socrates is mortal

—that this form, which has been given and accepted throughout the ages as the perfect type and exemplar of the syllogism, is not a syllogism at all! It may hardly seem to Dr. McDougall to be necessary to show this, but I should have thought that the demonstration, whether true or false, was of sufficient import to logicians to deserve mention, if my reference to the mortality of Socrates was to be mentioned at all. Merely to sneer at the investigation without giving the result of it, appears to me misleading to his readers. Dr. McDougall might have declined to review the book, or he might from spatial or other considerations have omitted reference to this part of it; but as he does refer to my treatment of the syllogism, and my investigation of the mortality of Socrates, he should have given, as to the one, the view that I do take, instead of ascribing to me a view that I do not take; and as to the other, he should have given the result of the investigation, which is novel and noteworthy even if erroneous, instead of leaving it to be supposed that it was common form.

Whether the normal processes of reasoning are or are not within the proper province of psychology is a matter on which Dr. McDougall holds one opinion and I another; or, as he prefers to put it, I "have not held fast, perhaps not even grasped, the distinction between logic and psychology," but as a matter of fact these processes are included in my book; and one of them and one only is referred to by my reviewer, and it is referred to in such a way as to lead the reader to suppose that it is the only mode of reasoning dealt with in the book. There is not a word in the review to indicate that my investigation of these processes leads me to the discovery of modes of reasoning hitherto undescribed, and to the erection of a system which amounts to a complete revolution and reconstruction of the science of logic. Whether this system is true or false, correct or incorrect, properly or improperly included in a book on psychology, is beside the question. It is there; it is in the book; and to ignore it, and give the readers of the review to suppose that the logical part of the book is nothing but a reslaying of the slain syllogism is a travesty.

My reviewer quotes a passage from the section on Volition and says that "it is not true, and . . . if it were true it would be very far from being (*sic*) an adequate definition of reflex and voluntary attention". Perhaps not, but as it does not pretend to be a definition, the criticism is beside the mark.

He says that I attempt to show that all pleasurable action involves a preponderance of assimilative or anabolic processes, that the pleasure is in fact the psychical expression of this preponderance of anabolism; and he treats this expression as if it were the whole, or at least the gist, of my treatment of pleasure and pain. I admit that I have slipped into an expression which justifies him in fixing this doctrine upon me; but I assert that any fair-minded reader who was concerned to give a true account of the book, and not merely to pick out passages here and there which offer opportunities for smart criticism, would not have presented this view as the whole, or the chief, or the true account of my view of pleasure and pain. Not only have I stated in the introduction that it is the interaction (between the organism and its surroundings) that is *favourable* that is attended by the mental quality of Pleasure, and the interaction that is *harmful* that is accompanied by the mental quality of Pain; but, in the very section from which my reviewer quotes, I have elaborated this doctrine at considerable length and in considerable detail; and have shown, as I believe for the first time, that account must be taken of the influence of the experience on the welfare not only of the

individual, but of the race and of the community also, thereby explaining "inconsistencies, contrarieties and contradictions" in the incidence of pleasure and pain that have hitherto been unaccounted for.

It is with regret that I find it necessary to criticise with some severity a critic whose original work I appreciate and admire, but I cannot allow it to be supposed that I admit Dr. McDougall's account of my book to be accurate, or true, or just. Had the misrepresentation been in a few minor points only, I should not have replied; but when it amounts to a general distortion, coupled with a suppression of the most important features in the book, I am bound to rectify the misrepresentation.

I am, Sir, yours, etc.,

CHAS. MERCIER.

FLOWER HOUSE,
CATFORD, S.E.

In Dr. Bosanquet's Critical Notice of Prof. Sidgwick's *Lectures on the Ethics of T. H. Green, Herbert Spencer and J. Martineau* he points out (MIND, July, 1903, p. 384) that "something has gone wrong, possibly in the revision," on page 26. On referring to the author's MS. it appears that what has gone wrong is, that a *not*, occurring in the MS. and clearly required by the sense of the passage, has—through some slip of transcriber or proof-reader—dropped out of the printed page. The sentence on page 26 which is referred to, should read: "Green's argument to show that 'the principle of action' is not 'a will which is not desire' seems to me therefore to be vitiated by a false opposition of alternatives".

THE EDITOR OF THE LECTURES.

MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY

I.—ON TRUTH AND PRACTICE.

By F. H. Bradley.

We all, I presume, have been hearing the sound of a new gospel in philosophy.[1] The exact nature of this I cannot state, for I have so far failed to understand it. But it loudly advertises itself as the destroyer of Intellectualism, and it claims to find the being and the truth of things in will and in practice. And, sweeping away the feeble obstacle of senile theories and teachers,[2] it promises to bring into the world,

[1] This paper was written in the early summer of 1903, and has been left much as it was. The renewed and repeated "manifestoes" of the protagonist of *Personal Idealism* (even *Personal Idealism*, it seems, was an "audacious manifesto") do not to my mind show any serious endeavour to deal with their subject. And to my mind they betray no consciousness of some difficulties which are so well known as even to deserve the name of traditional. I have however since that date made acquaintance with the interesting volume called *Studies in Logical Theory*. There is much in the position taken here by Prof. Dewey and the other writers which seems to me to be suggestive and valuable. On the other hand that position as a whole has not become clear to me. I agree that there is no such existing thing as pure thought. On the other side, if in the end there is to be no such thing as independent thought, thought, that is, which in its actual exercise takes no account of the psychological situation, I am myself in the end led inevitably to scepticism. And on this point I have so far failed to gain any assistance from Prof. Dewey. The doctrine that every judgment essentially depends on the entire psychical state of the individual and derives from this its falsehood or truth, is, I presume, usually taken to amount to complete scepticism. This is a matter which doubtless Prof. Dewey has considered, and a discussion of it by him would I am sure be welcomed.

[2] "The ancient shibboleths encounter open yawns and unconcealed derision. The rattling of dry bones no longer fascinates respect nor

perhaps even outside philosophy, youth daylight and happiness. It is in vain that I reflect that as a man grows old he has earned the right to be sceptical, since he has been forced to hear of so many novelties which after all were not new. For on the other hand it is too certain that age makes us stupid, and of that in my case no Personal Idealist was needed as a witness.[1] Of that I had (so the phrase goes) the witness in myself. Still, reflecting thus, I went on to think that there is a use even for senility. For a new gospel does not speak merely to the hopes of the young, or merely teach those others who, if they have ever learnt, are able as easily to unlearn. It has to meet prejudices which, if it is to succeed, must be silenced or dispelled. And so perhaps, because I myself am sunk in prejudice, I may be the better able to point out or at least to exemplify the obstacles in the way of truth. And my very defects may after all indirectly qualify me to assist, without understanding and even without faith, at this new birth of philosophy.

I will therefore forthwith assume that it is better for me to speak, and I will state why in my opinion the ultimate criterion cannot be merely practical. I will then set down some objections to any gospel of practice for the sake of practice. And finally I will give the senses in which I am able to understand this claim of all truth to be practical. In thus recalling what for the most part is old and familiar, I may hope to show to others, though not myself, the real glory of the new light.

(I.) In maintaining that truth essentially does not consist in the mere practical working of an idea, I would first of all remove a probable misunderstanding. For myself I have always held that at the beginning of its course the intellect directly subserves practice, and that between practice and theory there is as yet no possible division. I have expressed this belief long ago,[2] and I have repeated it since, as I believe, unequivocally and plainly. Again I hold that in the end theory and practice are one. I believe in short that each is a one-sided aspect of our nature. And for me the ultimate reality is not a mere aspect or aspects, but it is an unity in

plunges a self-suggested horde of fakirs in hypnotic stupor. The agnostic maunderings of impotent despair are flung aside with a contemptuous smile by the young, the strong, the virile."—*Humanism*, p. viii. This is certainly young, indeed I doubt if at any time of life most of us have been as young as this.

[1] In MIND, N.S., No. 42, p. 211.

[2] *Principles of Logic*, pp. 459-460. On the position of practice in life see further the note at the end of this article.

which every distinction is at once maintained and subordinated. On the other hand, wherever the word truth has its meaning, that meaning to me cannot be reduced to bare practical effect. And at our human level, and throughout at least some tracts of our life, the words true and false have to me most certainly a specific meaning. The nature of this I cannot here attempt to point out, but I hold that it is other than the mere fact that an idea works or fails practically. It is on account of this denial, I presume, that I am to be termed an "intellectualist," and this denial I will now proceed to justify. The view that truth everywhere subserves practice directly seems to me contrary to fact; but, even where this is the case, truth itself is not merely practical. This distinction appears, as I have said, to be often ignored. At an early and unreflective stage of mind no idea will be retained unless it works practically, or unless at least it practically satisfies me. We can have at this level no reflexion on disappointment failure and falsehood. And hence I agree that here there is no truth except where an idea works practically. But to go from this to the conclusion that truth's essence even here lies wholly in such working, is a further step which to me seems not permissible. The idea works, but it is able to work not simply because it is there and because I have chosen it. It is able to work because, in short, I have chosen the right idea.

Everywhere in conation and will there is an idea which is opposed to existence. And this existence nowhere is characterless, but it is a determinate being. And the character of this being again is not something inert. On the contrary it is an element in the whole situation, and it dictates to my idea as well as submits to dictation. If my idea is the right one, and if it works, this, we may say, is because the nature of the whole situation selected it. My idea, I agree, then reacts, and I agree that it then makes the situation to be different. But to speak as if the entire nature of the situation were first made by the idea seems really extravagant. If my idea is to work it must correspond to a determinate being which it cannot be said to make. And in this correspondence, I must hold, consists from the very first the essence of truth. I will proceed to show this first on the positive side, and then again where in failure and in falsehood we meet the opposite of truth. But I shall take our experience now at a level more removed from its lowest point, and shall consider it at a stage where reflexion is possible.

(*a*) The fact which first offers itself is the case of finding

means to a positive end. I desire, let us say, to cross a stream in order to gather fruit. The stream is swollen, and there is hence a gap between my idea and its reality. On this let us suppose that I retain my general idea of crossing, and that other ideas as to the particular manner of crossing are suggested. This is in the main what we understand by finding means to an end. Now these ideas, I agree, may all be said to be practical ideas. My end will remain my crossing somehow, and the means will probably consist in my doing something so as to cross. But these means surely must correspond to the actual nature of the stream, and surely to suggest that my ideas manufacture that correspondence is absurd. The stream is wider lower down, so that there I may wade. The stream is full of rocks higher up, so that there I may leap. If I will only wait quietly the stream is falling of itself. If I will only sit still, my companion has promised that he will come with a float. My end is practical doubtless, and my means still are the idea of myself doing something—if at least you stretch that so as to include my waiting till something happens of itself or is done by another. But when you ask what it is which makes each idea right or wrong, you cannot exclude its agreement or its discord with fact other than my will. And to ignore this aspect of the case, or to treat this aspect as if it were something somehow immaterial, to my mind, I must repeat, is wholly unprofitable. In selecting my means I am forced to consider their relation to the facts, and, if my idea works, it is because of this relation which is not made by my idea. And it is in this relation that we have to seek the distinctive nature of truth. Or we may say that the whole situation, inward and outward, dictates to me the selection of such an idea as can work, and that hence to treat this *congé d'élire* merely as my act on the situation is a foolish pretence. Let us take again the case where I go hunting and where my end is the capture of some beast. I obviously here may have to reflect carefully on the nature of the means. Where the animal is, and what it is likely to do under certain conditions, all this I may have to infer from a general knowledge of its nature and from a variety of indications that I gather from facts now perceived. And, if others are to cooperate, I have to take account also of their natures and of their probable conduct. The whole of this is fact to which my idea has got first to correspond. It has, that is, first to be true as a condition of its working. On the other side doubtless the idea of the means is dependent on the end, and doubtless, if you remove the end, you remove at one stroke

the idea and its truth. But from this you cannot logically conclude that the entire truth was made by your end and your ideas. It would be as rational first to insist that without the given facts there are in fact no ideas and no truth, and then go on to infer that in the end truth and will consist barely in what comes to my mind.

(*b*) I shall be charged, I do not doubt, with idle insistence on the obvious. But where I understand little more than that there is a denial of what to me are plain facts, no course is possible to me except thus to insist on the obvious. And so I proceed to view the facts from their negative side. When, at a certain mental stage, I fail, I do not at this stage merely try again and again, but I retain my failures and use them to determine my conduct. My being carried away by the stream if I attempt to cross here, my falling amongst the rocks if I try to cross there, my being captured by my enemies if I remain where I am—these ideas remove possibilities and they qualify the situation by narrowing it. They are practical ideas, and in the end they may subserve another idea which actually works. But, taken in and by themselves, you can hardly say that they work directly. On the other hand, however indirectly, they do seem to make an assertion about things which are other than my will. And taken as ideas of my 'doing' they have to fall under the head of 'avoiding'. But that avoidance is based, I submit, on what things do to me. It depends on a character in things which hinders me or even actively makes me suffer. For we are not to say, I presume, that I avoid evils merely because of my desire to do something in the way of avoidance. We may see this more evidently where I am not engaged in any positive pursuit, but where a danger threatens me from which terrified I desire to escape. It is dusk and the man-eating tiger will be coming, and I do not know how to avoid him whether by this course or by that. And surely, in order to find some idea which will 'do,' I must before all things consider his nature and what he on his side is likely to do. The same thing is evident again where my enemies are human. My end is practical, but surely my ideas about the means must be dictated to me by something which is clearly not myself. And this forced agreement of my ideas with a nature other than my volition is, I presume, that which in general we understand by truth.

And there are moments when nothing works and where every idea fails. I am starving, but I am helpless for I cannot climb to reach the fruit. I am dying of thirst, but my legs are broken and I cannot move to reach the water. I am

tortured by an internal pain which I can do nothing to assuage. And here I need not idly repeat my futile efforts until exhaustion and stupor supervene. I may realise my fate and I may become aware that this now is my doom. The nature of that which is opposed to my will has triumphed. Or I may see my companion in the jaws of some inevitable danger where I am impotent. This to me is true, it has whatever truth belongs to death pain and evil, but I hardly know in what sense it is an idea which works. You may possibly reply that suffering and death are undeniably practical, and that my idea at any rate exactly meets the practical situation. But to me there is more sense in the old view that my idea meets the situation theoretically and not practically. The idea of a failure in another or of failure in myself surely here does not itself produce the failure, and, if it did so, surely that would be the worst failure of all. And to make here the agreement of my idea with facts into a practical success, would be the mark of insanity rather than of philosophy or common sense. The idea of avoidance is here an idea which obviously cannot carry itself out. And the reflexion that failure is but the deferred and assured coming of triumph, if such an idea were suggested to creatures in these straits, might seem to them the one idea which above all others neither works theoretically nor practically.[1]

[1] It may be said that every idea, even of failure, works successfully in producing a corresponding attitude or other change in my body or some part of it. I agree that, to speak in general, an idea tends thus to express itself emotionally. This in brief is one aspect of an idea's general tendency to realise itself. But this way of realisation in emotional expression is not to be confounded with the other specific ways which we call thought and will. Every one, we may say, in practice would distinguish a gesture or a blush from a volition or a judgment. The mere emotional expression of an idea is in short not my act, and you cannot attribute it to my will. Again this emotional expression of the idea, if for the sake of argument we assume it everywhere to exist, cannot possibly, I presume, be more than generic. It must therefore fail to correspond to the individuality of the idea. And again it depends so much upon the psychical liveliness of the idea, that an idea counted false may possibly express itself more forcibly than an idea which is taken to be true. We should in short here have a doctrine in principle the same with Hume's theory of belief, and open to the objections which seem fatal to that theory. The emotional expression of an idea or of one aspect of an idea is, we may say, a mere incidental result from the strength and dominance of that idea or its aspect. Any attempt to find in it the specific essence of truth and falsehood in the end must break down. But in any case, so far as what is called Pragmatism is concerned, to fall back on such a doctrine would be suicidal. For this emotional expression is plainly not will. It is the working of an idea on me, and it is not my working. We have here a psychical effect and not properly an act of mine. It would (to pass to another point) be interesting to know how our new gospel conceives its

There is indeed an ancient doctrine for which no power in the end is mere force, and which finds no evil in the world except for self-will. And the self that can apprehend all force and all suffering as in the end will and love, does itself thus succeed and does triumph even in its own anguish and despair. And the way to this end, however hard, is at least familiar, for it is the open secret that has been revealed by the Teachers of the East, and, whatever you like to say against it theoretically, it is a faith which certainly can work. But this is the way which our new gospel of personal individualism seems to advertise as henceforth closed. At least if my ideas and my will, or the will and the ideas of any man or set of men, are to be the measure of truth, then, so far as I see, the reality cannot lie beyond the private ends of individuals. And to realise the self by self-surrender to the supreme will, must, I presume, be set down as at once irrational and immoral. For there is not, I understand, and there ought not to be any will which is supreme, and really sole master of the world, and lord of suffering and of sin and of death. And again in no possible case could any will which is quite external to my own become really and in truth something personal to myself.

But at this point our new gospel, it seems to me, begins to falter, and it seems evasively to point to an ambiguous way of escape. If the world and its power which confront me are the funded accumulations made by striving beings (MIND, N.S., 45, p. 94), then after all the world can be no force which is alien to my will. But such a plea to my mind sounds like trifling or like mockery. For to view ourselves as insects on a coral reef is hardly a solution which works. If the world in fact is hostile to my will, then it does not cease to be hostile because others like myself have had the same or a different experience before me. They have altered the world, I know, and they have improved it, if you will, but they have not altered it so that it does not oppose me.[1] No gratitude

relation to Dr. Bain's theory of belief. It might seem to have taken that theory, and, without considering the objections to which it is liable, to have gone beyond it by simply writing 'truth' for 'belief'.

Every idea of course works by inhibiting so far the action of other ideas. And, since these other ideas may be practical, every idea, if you please, is practical negatively. But on the other hand surely it is clear that the meaning of truth is something positive. Truth surely can never be barely negative, nor can you find its essence in its mere prevention of the happening of something else. In fact here, as everywhere, it is in the end nonsense to take anything as consisting merely in inhibition.

[1] I shall deal lower down with the apparent claim that my world has thus been actually made and not merely altered.

of mine for past efforts will transform the living fact, and no belief in some happier future, when I am past, can serve to change the actual present. If indeed to me there were no force in the world but the veiled love of God, if the wills in the past were one in effort and in substance with the one Will, if in that Will they are living still and still so are loving, and if again by faith, suffering, and love my will is made really one with theirs—here indeed we should have found at once our answer and our refuge. But with this we should pass surely beyond the limits of any personal individualism. For this we must have more than the mere accumulation of several efforts. We cannot rest in a God who is no more omnipotent than one of ourselves, and who, though animated, I dare say, by the best intentions, cannot answer for the unknown force which confronts himself and us.[1] And, as I understand, the remedy is for us to discard such perverted wants and such unnatural desires. We shall find our glad tidings in the unfailing advertisements of the new way in philosophy, where every doubt and all disease has found its certain cure, and where at last every tub can stand upright on its own bottom.

(II.) I will pass on to consider another aspect of the case. We often hear a cry which seems to set forth the virtues of practice. But, when before all things I seek to understand in what this practice consists, then I scarce can apprehend a word which to me is intelligible. And, since my ignorance and perhaps my bias is not peculiar to myself, I will venture without apology once more to lay bare the nakedness of my mind.

A young man frequently hears it said, why cannot you take up something practical? Why cannot you, in other words, place your first end in what is called a comfortable life, and seek to eat and to drink and to reproduce your species, while enjoying the social consideration and the amusements of the average man? And the young man may reply that, so far as he sees, this would not bring him happiness. He prefers to place his chief end perhaps in art or in science, or again in the excitement of the chase or of gaming or amours, or possibly, it may even be, in some form of mystical religion. And to seek my happiness, he would

[1] Instead of 'a God' I should perhaps have written 'a God or a set of gods'. Our new gospel seems not to have decided at present whether monotheism or polytheism is to be the creed of the future. I should be inclined to agree that from a religious point of view the difference in this case has no importance.

exclaim, however far away from what the world calls practical, how can there be for me any course more practical than this?[1] And evidently here there is a failure to use words on each side with a common meaning. Our confusion may be further heightened when we reflect on the one hand that everything in our lives must be practical. For conduct is practical, and nothing that we are and do can possibly, it seems, be external to conduct. But on the other hand in at least some men we seem to discover non-practical wants. We seem to find a desire for the cultivation of truth or beauty for their own sakes, or even a longing for the contemplative absorption in the eternal. And thus while on the one side every desire and every want must be practical, on the other side some practical aims seem to entail the subordination of practice.

These familiar doubts, idle to those minds which have risen far above doubt, to other minds have suggested serious questionings. And I will go on briefly to state that which has served as perhaps a sufficient answer. My practice may be called in general the alteration by me of existence inward and outward, and 'existence' we may understand as what happens or as the series of events. And since, whatever else it is, my whole life certainly is a process in time, certainly everything which I am or do has, or may have, this practical aspect. Our being is realised, we know, by maintaining ourselves and our race against natural accident and decay. We have to eat and to drink and to multiply our kind. Then again there is our life in the family and in society. We are born into and enter into wholes wider than ourselves, and in these the individual finds his own self in its connexion with other men, and has his being in their consideration and also their love for him. But now let us suppose further that a man is able to go even beyond this. Let us suppose him capable of pursuing and of enjoying truth and beauty for themselves, and able to find his own nature realised in the unselfish love of these objects. Such a supposition, I am aware, is in principle contrary to individualism, but our discordance with individualism (by whatever new name it likes to call itself) has begun long before such a point had been reached. However that may be, let us suppose that a man can in fact desire and can enjoy for its own sake what is beautiful and true. These objects on one side exist for his theoretical activity, and they involve obviously and necessarily an alteration of his personal existence. They and their pursuits are therefore practical, how intensely practical

[1] *Cf.* Prof. A. E. Taylor, *Elements of Metaphysics*, p. 317.

is known to all who have experience of the facts.[1] Alteration of existence is implied inseparably in the being of truth, but truth, to confine ourselves here to truth, has another side also. And, when you take in this side, you cannot say that the essence of truth consists in a change made in or made by this or that individual. The angles of a triangle may, if you will, not exist outside of the geometer's head, but their equality to two right angles is hardly nothing but a present change made in him. The laws of the planets and stars, we believe, in part revealed themselves truly to Newton, but the revelation, if so, was something more than a mere personal event. It is only in poetry that America rose from the waves at the will of Columbus, and even in poetry the America which appeared was a thing found as well as done. There is for us no truth, we may say, save that which discovers itself to us. The finding of truth is on one side an alteration of the world, but this alteration on the other side does not contain the truth itself which is found. It is impossible to make the truth a mere deed and a mere outcome and a mere adjective of the person who discovers or enjoys it. As my theoretical activity it is a practical change in my existence, but as my object it has another character and a different purpose. Its essence cannot lie merely in that which I do either to myself or to the world.

The gospel of practice for the sake of practice and everything else for the sake of practice, makes, I doubt not, a good cry. But it will satisfy in the end only those who have not asked what practice is. Practice we have found to consist in my alteration of existence. Now, if we take this as our end, we seem to place the end in mere quantity of being and change. Our end must be being and doing, maintained and reproduced, without regard to any quality possessed by it, except of course so far as difference in quality goes to subserve quantity. But such an end is hardly what in general men seek or can desire, and it will, I think, be obvious to any one that in his own case he would not care for mere increase of being apart from quality. We might of course set up mere pleasure in abstraction as our end, and we might endeavour to subordinate consistently every other aspect of our being to this one reality. Truth and falsehood would in this way become mere increase and decrease of pleasure. And these characters would be no facts to be ascertained by an independent intellect, since the whole of their truth and

[1] There is an admirable passage on this subject in Balzac's *Cousine Bette*, which is, I hope, well known to the reader. The only reference I can give is to pp. 179-181 of vol. xvii. of the edition of 1865.

reality would have to consist in their accordance with my present feeling. This is a view which, so far as I know, no Hedonist among us has advocated,[1] and in any case it would hardly square with the gospel of practice. And hence, unless I am to take mere quantity of doing as my end, I can myself find in the end no sense in the cry of practice for practice' sake.

And, if I may be allowed to put on one side things which I am unable to comprehend, I would venture to state in a few words how I understand the relation of practice to life. The end I take to be the fullest and most harmonious development of our being, and, though I will not deny that this coincides with the largest amount of mere doing,[2] the latter aspect I must regard as but incidental. Now, if our being is to be realised, its main functions must be regarded as ends, and every side of our nature in being realised will thus assuredly be practical. For, to speak in the main, whatever we are and whatever we acquire, becomes and remains ours only on the condition that we are active and doing. Thus everything in life, to speak once more in the main, is a practical end, and every possible side of our life is practical. But among these ends and aspects there is on the other hand an important difference,[3] for we are forced to deny in a sense that some of them are practical. Some of them, that is, do not involve the alteration of existence except incidentally, while with the rest this alteration is, in various senses and degrees, essential and vital. Eating and drinking, and life in the family and in society and the state, may be called practical essentially. Our actual existence in time and in space has in various senses to be changed by all of these functions. And in addition their contents can be said to fall within the world of what we do and make. Their product can be said in the main to qualify that existence which we produce and alter. And further the arts and sciences which subserve these "practical" ends, are themselves, so far as they subserve these, practical also. But the attitude of mere theory and of mere apprehension is on the other hand not practical. It has to alter things, but, so far as it remains independent, its chief end and main purpose does not consist in any such alteration. Truths must exist in a mind, and, to exist in it, they must come there, and, to speak roughly and in the main,

[1] *Cf. Appearance*, p. 374.

[2] I wish here neither to deny nor to assert this. The question is a difficult one.

[3] I have further enlarged on this point in the Note appended to this paper.

they must also be brought there. And so of course, in order to exist, they must alter that mind. But the truth itself does not consist in its existence in me. Neither I nor any other man can make truth and make falsehood what they are. Truth may not be truth at all apart from its existence in myself and in other finite subjects, and at least very largely that existence depends on our wills. But, though I can find in truth the satisfaction of a want, and though I can recognise my own being in the possession of truth, yet on the other side I cannot regard its nature as subject to my will. If for its realisation a change in myself is indispensable, I cannot on the other hand say that its main being lies in that alteration of existence. While truth is mere truth, I do not even carry it out into the world. And to make its essence a bare quality or a mere deed of our minds is to destroy that essence.

The same thing holds again of what is beautiful in nature or in art. The nature of that is in principle not subordinate to an external end. We can make it to exist or appear, but we cannot on the other hand make it to be that which it is. Its character is something which is beyond my power, it is something which I must recognise and cannot alter. So far as it is a product it is a product which cannot be taken as the mere adjective of the function or process. Beauty in other words is from one side independent of our wills. It is an end the specific nature of which is not subject to our choice, and cannot consist in a relation to anything else which is so subject. And if truth and beauty have this character, and if on the other side truth and beauty are human ends, then clearly we have ends which are not practical. They are practical, that is to say, incidentally, but not in their essence. Thus on the one side these ends may be called independent, though on the other side they must involve human need and desire. And hence, if our life is to satisfy its desires, these ideal ends should be desired and be pursued for themselves. And, viewed in this way, it is clear that though practical they are still not subordinate to practice.

If we take things from another side, then all, as we saw, can fall under the practical end. For everything in life is subject to life as a whole, and the end of morality is to develop, to order and to harmonise, our human existence. There is no element therefore to which the moral end is unable to dictate, and even truth and beauty, however independent, fall under its sway. Beauty and truth therefore are at once dependent and free. The moral end dictates to us their pursuit and it sets limits to that pursuit. The space

which these objects are to occupy in my life, how far and how long it is right for me to follow them, nay even to some extent the kind of truth and beauty which I should ignore or should follow, all this, it is obvious, is or may be the affair of morality. But the nature of that which is to be beautiful or true falls outside of the moral control. It is the vision, and it is not the object, which is subject to our wills. The ideal does enter into my life and it makes a part of my existence, but it is only in one aspect that I can master it and subject it to my power. And the practical human end is, in very truth, to follow ends which in themselves assuredly are not all practical or all merely human.[1]

Any such creed is perhaps as obsolete as it is old and familiar, and, if we believe the advocate of "pragmatism," it is but foolishness and falsehood. And yet in philosophy, if error is to be removed, it possibly after all should be removed by discussion. It is hardly mere darkness to be dispelled by the rising of some luminary however refulgent. And yet, since neither of us seems to understand what the other can be meaning, a rational discussion between the 'personal idealist' and any adherent of the old doctrine seems unattainable. There is a view that the independent use of the intellect is impossible, that the intellect has neither freedom nor any being of its own, and that, except so far as it consists in practice or again indirectly squints at practice, the intellect is nothing. This view to me at least seems contrary to the plain facts of human nature, and to me at least this view seems to end in nonsense. There is again a view that the independent use of the intellect is possible but is undesirable, and this view again, though less obviously absurd, seems to me indefensible. Certainly on my side I should insist that any one-sided development is not desirable. I should insist that the realisation of any aspect of human nature should, to speak in general, be limited by due regard for the whole. But to distort this truth into a vicious error, and to suppress wholly in its specific quality one main function of my being, this is to me a deplorable and inhuman

[1] We may put it thus, that in the end the practical end must be the Good, but that the Good, when you examine it, is plainly more than mere practice. Or from the other side we may say that in the end there is no criterion which is not practical, and that the true and the real will in the end fall under the Good. But, when we have shown this, we find ourselves forced on the other hand to make distinctions within the Good, and to recognise, as before, that the Good consists in more than practice. And practice itself, when we examine it, will be found even in itself (I cannot deal with this here) to involve and to depend upon judgment and truth.

mutilation. If you could show that the science and art which fails to squint at practice is an evil excrescence, and that like sexual aberration it perverts a desirable function, the case would be altered. But the loud assertion of the Personal Idealist[1] will not move those who have learned otherwise from the facts. And it will move them the less since they are convinced that the assertor, if he understood his own doctrine, must hold any end however perverted to be rational if I insist on it personally, and any idea however mad to be the truth if only some one is resolved that he will have it so.

The following of science for the sake of science and of art for the sake of art is, if I may repeat what I have accepted, to be kept within limits. Like every other side of human nature it is thus subordinate to the welfare of the whole, but on the other hand within its own limits it should be perfectly free. This relative freedom is even dictated by the interest of the spiritual commonwealth ; and hence this freedom is in the end the most practical course, if we take ' practice ' in anything but a limited sense. And it will be a mistake in practice after all, when you take our world as a whole, to seek to banish from it the pursuit of unworldly objects and ends. But you do in effect condemn these pursuits, you vitiate their nature and you destroy them, when you sentence them to keep throughout at least one eye upon the world. On the one hand obviously our available supply of energy is limited. On the other hand, if due regard is had to this limit, the independent cultivation of any one main side of our nature promises advantage, for it promises (at least to those who hold to the unity of that nature) to react and to contribute to the general good.[2] We believe in short in relative freedom, and we do not believe in divorce or in one-sided suppression. And we do not believe that the way to advance our human nature is to subordinate all of it to one aspect—I do not care what that aspect is. At the beginning, I agree, there is no distinction between theory and practice, and again I am clear that there is none in the end.

[1] *Personal Idealism*, p. 85. I shall briefly notice lower down the difficulty which arises with regard to a knowledge that truth ought not to be independent. Clearly this truth also is dependent. but it is hard to say on what.

[2] I have of course not forgotten that there are 'developments' of human nature which are undesirable and vicious. Why these are undesirable is a question which I cannot discuss here. The answer in general is that such things not only are contrary to the interest of our whole nature, but also are hostile to the realisation of that very side of it to which they belong. They therefore are not in the best sense developments but are perversions of our nature.

But on the other hand our human life is to me assuredly neither all beast-like nor all divine. And, if I am so far condemned to follow a philosopher who lived before the coming of the new light, I am for my part well content to share in his darkness.

But I shall doubtless be told that the intelligence springs from and depends upon need and desire. There is no understanding, it will be urged, and no truth, except where there is an interest ; and since interest and want must be admitted to be practical, we have here a clear proof that all in the end is subordinate to practice. To myself however this proof adduced by the logic of Pragmatism seems hardly to require any serious discussion. To me it seems obvious that, if some function belongs to our nature, there will be a need and desire which correspond to that function. Hence, if the free use of the intellect is really one aspect of our being, we shall in consequence have a need and a desire for that use. And how this can prove that no interest is in the end intellectual, I fail wholly to perceive. There is an attempt apparently to pass direct from "my want must be practical" to the required conclusion with regard to the object of my want. But since the doctrine attacked denies this conclusion, and since it holds that interest and want, practical on one side, may nevertheless be directed on an object which in itself is not practical, there is literally, so far as I can see, no argument at all. All that I can find is the sheer assumption that a certain view is mistaken, coupled apparently with an entire failure to apprehend in what that view essentially consists. And you might as well come to me and offer to argue that I cannot want to look at a star, because my vision and my want are always terrestrial. And you might as well demonstrate to me that plainly I can love nothing beyond me, because my love after all must be a piece of myself. But the Personal Idealist, I imagine, is likely to smile at my belated logic.

(III.) I will now attempt briefly to point out the various senses in which we may try to subordinate truth to practice. We have already learnt the ambiguity of any assertion that truth is practical, but it may repay us to realise this ambiguity more in detail, even if that detail is far from exhausting the subject.

(1) We may affirm that 'reason is the slave of the passions'. We may hold that, except to find means to a foreign end, truth is (*a*) idle and useless or (*b*) even impossible. (*a*) The first of these statements does not deny the possibility of a

truth which is merely theoretical. It denies it only so far as to insist that such a truth is worthless, and that it therefore does not deserve to be called truth. (*b*) The second statement on the other hand appears to make an unqualified denial. But it seems inconsistent with itself so far as it assumes an independent knowledge of means; for any such knowledge would appear to contain truth which so far is theoretical. Further the doctrine that the world and my nature are of such a kind that all truth must be practical, appears itself, so far, to be a truth which is theoretical and therefore is no truth.

(2) We may from this proceed to a position with which we all are more or less familiar. Truth, we may hear, is after all nothing but working hypothesis. We have truth when we can say of an idea that it will 'do,' and an idea will 'do' only when, and so far as, it will work. There is, in short, no meaning in truth other than the idea which works best. This general statement however admits of more than one interpretation. (*a*) It might mean that truth is the idea which works best theoretically. There is in other words here no truth in the sense of something which is given as absolute. There are no data which we may assume and on which we may build as certain each by itself. All is material, in short, with which we experiment ideally, and the ideal experiment which in the end best satisfies itself and us is what we mean by truth. It is however obvious that, with so much, truth has not become merely practical. Indeed such a position would be consistent with an extreme intellectualism. And on the other hand the doctrine that truth is what works, usually means to make truth the mere servant of something else. We may therefore pass on to consider another meaning. (*b*) The order and series of my sensations may be taken for granted, and truth may be regarded as a construction which is formed out of these. The end for which the construction is made may remain unspecified, and at present at least this point may be ignored, for in any case the doctrine has failed to make truth merely practical. Truth is our construction, but truth is forced to start with an order of sensations. This order is in the main independent of my choice and my will, and is a given fact which dictates to me and to my choice of means. It is hence hard to see how such a fact can be excluded and left outside of truth, or how again such a fact is merely practical. "Reality which in the outer order confronts me is such, that to reach a certain end I am obliged to hold for true this or that"—a truth like this, I agree, is highly imperfect, but I cannot see that it has ceased to be so far

theoretical. Or, if we enlarge our doctrine by ceasing to lay a one-sided stress on what is outer, and if we call truth the ideal construction based on the entire order of what happens, we have still, so far as I see, made no advance in principle. Whatever end we may desire, the means to this end are still dictated by something which we have to call matter of fact; and this knowledge as to matter of fact still remains and must remain at least in part theoretical. And our knowledge further with regard to this entire state of things seems once more truth which has not itself the character assigned by us to all truth. (c) We may go on therefore to seek a remedy in the removal of our one-sided prejudice. We may reject the limitation of knowledge to the mere world of events which happen, and may deny the claim of this world to be taken as an ultimate foundation. Reality, or the Good,[1] will now be the satisfaction of all the wants of our nature, and theoretical truth will be the perceptions and ideas which directly satisfy one of those wants, and so indirectly make part of the general satisfaction. This is a doctrine which to my mind commends itself as true, though it naturally would call for a great deal of explanation. But, with this, evidently truth is not subordinate to practice. It has a practical aspect, no doubt, but its whole essence is not practical. Its end is an element in the general end, and is in this sense subordinate; but its end is not subordinate to any other partial aspect of the whole. And practice on its side will be no more than such a partial aspect. Hence, if truth is to be practical, this whole view must be given up or else must be modified. And it must, I presume, be modified by the denial of any want save that which in the end is practical in its essence. Truth will therefore once more become dependent and subordinate, and will consist in the ideas which serve as external means to the practical end. But, with this, we seem thrown back once more into the midst of our old difficulties. For the nature of things does not seem to depend upon and to consist in subserviency to the practical want and choice of myself or of any set of men. And on the other side truth seems forced to take account of the whole nature of things. In other words I may choose to isolate what I call my practical end, but the means to that end must be prescribed largely by something other than my choice. And since truth is forced to express something which thus dictates to practice, the essence of truth can hardly consist

[1] The Good is here taken once more in its highest sense, a sense in which it has ceased to be merely practical and has ceased to be merely good.

in subservience to the practical end. We may perhaps put the same thing by asking how, if truth has no independence, there is in the end any possibility of real argument or of real error. And our knowledge of the whole situation and of the nature of truth seems once more incompatible with the position which we have thus given to knowledge.[1]

(3) A more radical view is the doctrine that reality in the end is will, and that intelligence has somehow a secondary position. A view of this kind was upheld in the first quarter of the last century by more than one well-known philosopher, and it has naturally been subjected to a good deal of criticism. This is a point which our new gospel seems to think calls for little attention, and I could not myself be expected here to enter into it at length, even were I able to do so. I may however be permitted to state briefly the main reasons which have always made it impossible for me to accept in any form the primacy of will.

(*a*) Will in my judgment must imply something in the self or beyond the self which is other than will, and, apart from this 'other,' I cannot find any sense or meaning in the 'will' either of man or of God. There is to me no thinking without something which thinks and again something which is thought of—something in either case which is other than mere thought. And in the same way there is no willing except that which both proceeds from something and changes something—something again in either case which is other than will. And I may add that to me will involves not only perception but also idea, and that I find this hard to reconcile with a secondary position of intelligence.

(*b*) The necessity for an 'other' may lead to an admitted plurality of wills, and in any case without such a plurality the whole doctrine tends in effect to negate itself. But on the other hand the plurality, if admitted, raises difficulties which to my mind are insuperable. If will demands a perceived 'other' which it alters, how is this to consist merely in another will? To me it seems that each will must presuppose in the other will something which is more than bare willing. My volition to me is a process of passage from idea into existence. Hence, as soon as and as far as that passage is realised, my volition in the proper sense has ceased to exist. The outer

[1] The question how far anywhere we are to use working ideas the nature of which is to be dictated in some sense by a practical end, is a question I do not discuss. The point, I agree, is both interesting and important, and it deserves a discussion which would be impossible within the limits of this paper. I am concerned here simply with the assertion that all truth is in the last resort merely practical.

existence which is the expression of my will is in a sense certainly my will, but in the strict sense it is not my will. Thus I do not understand how the inner side of another will is to serve as that perceived 'other' which my will demands, while again, if the other will is taken as a perceived existence for me, I must understand it to be something which is more than and is other than mere volition.[1] And we have already seen that, if you confine yourself to my will, that demands both an 'I' and an 'other' as conditions of the process. Further with an admitted plurality of wills there is a difficulty with regard to their relation. The relation (that seems evident) cannot be the mere adjective of either of its terms. But, if it falls beyond each, then neither term by itself is all reality, and there is at once a question on our hands with regard to their 'togetherness' or unity. This again apparently must be will; but, if it is will, I do not see how it is in the end to have an 'other'. If on the contrary it is not will, then, since we hardly can take the unity as barely unreal, reality seems at once to include more than will.

Will in fact implies all reality, and in this it is like thought, for in thinking once more you can find all reality. You can, that is, identify a complex whole with one of its aspects, and then naturally in that aspect you can go on to find everything contained or implied. But for myself I see no advantage in such a procedure. And I see no advantage in rushing blindly from the rejection of one extreme to the acceptance of the other, especially since I have now been

[1] The fundamental difficulty I take to be this, that will must imply and must presuppose what is other than itself. Thus on the one hand bare will is no will, while on the other hand, as soon as will has ceased to be bare it has become something more than will. This main difficulty is, to me, at once radical and insuperable, and it shows itself in the relation between will as inward and as carried out. If you do not here admit an existence which in some sense is more than mere will, you, so far as I see, make will an unmeaning word. Thus with a plurality of wills, if each will is to have any known world outside itself, you are on the above ground forced to admit some existence beyond it which is more than any mere will. For I cannot see how, if each will has no outside of its own, each is going to serve as the outside for another. This idea may seem plausible, but I at least cannot carry it out. And if, leaving this, you assert that will itself is a whole which possesses in itself both an inward and an outward side, then I do not understand what you are to reply when some one else chooses to assert that this same whole is intelligence or feeling.

To find the solution of the world's problem in a number of wills, which serve amongst themselves each to the others as outward existence, is, I agree, at first sight a very promising adventure. For myself I have never been able to surmount the obstacles which I have mentioned. But it would be a pleasure to me to learn that they can be surmounted.

acquainted with both extremes for more years than I care to recall.

If further we give to intelligence a secondary place, we have to reconcile this fact with our knowledge that it is so. We may say that Will possesses an awareness of itself, and on this awareness we may base our philosophy of Will. But, not to speak of the difficulty which arises from the evident or at least the apparent fact of other experience and knowledge, it is hard to see how this awareness can justify its position. For we are in a difficulty on one side if we regard it as secondary. On the other side if this knowledge and this truth is to be primary, the secondary place assigned to all intelligence seems hardly intelligible.

(4) I must pass from this attempt to identify reality in the end with will. For the Will, which is reality, is not for such a view my mere individual will. And it is my individual will with which, so far as I understand the matter, we have to do when we come to Prof. James and his followers. At least, if it is not *my* will which makes reality and truth to be what they are, I hardly see what can be left of the gospel which they preach. I have already noticed what to myself appears a mere endeavour to compromise. If you take the world to be a funded accumulation made by striving beings (MIND, N.S., 45, p. 94), you unite in one creed, it seems to me, every opening to objection. In the first place, since this fact is not your mere individual will, you either are confronted with a reality which is other than your will, or else you must accept a real identity between this existing will and yours. And what then has become of individualism and of pluralism and of 'personal idealism' I am unable to guess.[1] And further your knowledge of the fact of this accumulation, on what does that knowledge rest? Is it dictated to you by a fact which is other than your will? Then, so far as I can judge, the whole doctrine has in principle vanished. Does it depend on and consist in your individual want and choice, and is it *this* which in the end both is and makes all reality and truth? It is strange, if

[1] The self-elected leader of our Personal Idealists seems at times to fall back on the old and well-known view, that truth is merely what happens to prevail, merely those sensations and ideas which happen to enforce themselves among a particular set of men, and that truth has no meaning which is other than this. He even appears to be under the impression that this doctrine is new as well as salutary. But, for myself, I could never see that whatever is the result of a crude interpretation of Darwinism must therefore be novel. And when the same writer preaches that Man (with a capital) is to be the measure, I should not infer that he has asked himself what in the end this capital is to mean.

so, that you should seem unable to say what you mean, and should fly for refuge to the unexplained phrase of 'conditions'. It is useless again to offer a reference to Aristotle and to Fichte, for there is more than one reason why such a reference gives no satisfaction. The preachers of a new gospel should, in short, be ready with payment in cash. And, when they seek to put me off with a cheque drawn on their account with Moses and the prophets, I take it as a practical admission of insolvency.

If the follower of the new way desires to be consistent, he must take courage, it seems to me, to face his obvious conclusion. Reality and truth are what I want and are that which at any time I choose to make them. I am omnipotent, that is, in a sense in which the God of Christian theology is not omnipotent. For I can make and I can unmake fact and truth at my caprice, and every vagary of mine becomes the nature of things. This insane doctrine, so far as I see, is what consistency demands, but I cannot attribute it even to the protagonist of Personal Idealism. For, apart from other inconsistencies, even he appears to believe that, to gain immortality, he must lead others through magazine articles and circulars to be of one mind with himself as to life after death. And since, to speak for myself, I am not clear that I desire such immortality, I congratulate myself the more on having declined, it is true on other grounds, to co-operate in what seemed to me a foolish business.

The new gospel doubtless to myself has not made itself intelligible, but I have not found any one else who is able to understand it.[1] I do not see how it can meet old and familiar objections, and I am even forced to venture so far as to doubt its novelty. The one thing I cannot doubt is that we ought to have more explanation and less self-advertisement. It does not really help us when we hear from Mr. Schiller a perpetual cry that there is no philosopher but Prof. James and that Prof. James has a prophet. And it does not help

[1] Mr. A. Sidgwick, the reviewer of *Humanism* in the last number of MIND, appears to welcome and embrace the offered gospel as both important and new. At the same time he appears to admit that he also is unable to give any coherent account of it, and he seems to allow in effect that he does not know what in the end it comes to and really means. If, like Mr. Sidgwick, I claimed to be the champion of philosophical scepticism (MIND, N. S., No. 11), I naturally might join with him in celebrating the defeat of reason and the triumphal advent of the unintelligible. What however to my mind Mr. Sidgwick fails to explain is how this defeat of reason is to be the assured victory of Pragmatism as a rational theory.

to hear from Prof. James (on his part not to be outdone) that, if Mr. Schiller would not exhaust himself by excess in facetiousness, he would produce a philosophy as probably classical as it would be certainly inspired (MIND, N.S., 45, p. 94). I forget before how many blasts of the trumpet the walls of Jericho fell, but the number, I should judge, has already been much exceeded. The walls of Jericho, so far as I see, have no intention of moving, and the dwellers in Jericho tend irreverently to regard the sound as the well-known noise which comes from the setters forth of new pills or plasters. In this particular they are wrong, but I think that at least in general they are right to refuse to connect philosophy with the sound of the trumpet. And there is a thing which, in his zeal and in the goodness of his heart, Prof. James may have forgotten. It is perhaps true that a man is never written down except by himself. But it is certain that a writer can be discredited by the extravagance and the vulgarity of his disciple, if at least he does not see his way to disconnect himself from it.[1]

I will recall some beliefs which our new gospel seems called on to meet. Practice is a necessary aspect of human nature and of the whole of things, but practice is not the whole of things nor is it the entirety of human nature. It is a pernicious error to set up one aspect of our being (I do not care what that aspect is) as an end by itself to which everything else is subordinate. Our nature is complex, and on the other hand our nature has and ought to have an unity, but its unity is not to be found by setting up one element as absolute, and by turning all the rest into mere external means. Further it is true that any one-sided expenditure of our limited energy is so far hurtful. And it is true that in the interest of the whole such expenditure must be limited. But it is wrong to conclude from this that within its own limits no element is to have free play, and that the whole in short is best served by the work of slaves. And, before a man lays down the law as to practice, it might be better if he told us what in the end he takes practice to mean. And before we rush or drift from a rejection of 'intellectualism' to a setting up of 'voluntarism,' we might perhaps inquire

[1] If the reader will look, for instance, at the article on 'Useless Knowledge' in MIND, N.S., No. 42, he will hardly, I think, be of opinion that what I have said above is uncalled for, or that it goes too far. Vulgarity doubtless is a matter of sense and feeling, but, where Plato and Aristotle are concerned, there will, I think, be few persons whose sense and feeling will be that of the writer of the above article.

whether after all we are inevitably condemned to choose between conflicting abstractions.[1]

The contention that truth and falsehood depend on my will is to the last degree ambiguous, and it may end in what is unmeaning or is plainly false. To make the whole essence of truth consist in a choice made by this or that person subverts the very nature of truth. On the other hand to treat the will of others, or to treat the result of any past volitions as being my will and choice, seems really a thoughtless attempt at compromise. Finally the essence of will requires an 'other' which is not will, and without this 'other' bare will like bare intellect ceases to be itself. Itself is reduced in either case to vacancy and to nothingness. And the question of this 'other' cannot be disposed of by unexplained phrases, and still less can it be met by any appeal to authority. And once more, if knowledge is known to be secondary, the fact of this knowledge itself calls for explanation.

It is well to protest against one-sided intellectualism and to insist on the reality and on the worth of practice. It is well to lay stress on the defects of Monism and on the positive claims of Individualism and Pluralism. Such protests against one-sidedness are perhaps never out of place. Such criticisms, even where they are not deserved, can per-

[1] *Personal Idealism*, it seems to me, supplies us with two striking illustrations of the tendency to avoid Scylla and to find a haven in Charybdis. The Rev. Dr. Bussell (pp. 337-368), seeking to protect our threatened morality, declares open war upon Orientalism and Mysticism. But even a layman may venture to remind Dr. Bussell that theologians, perhaps as learned and as pious as himself, have held that mere morality is not the highest thing. And certainly a layman may wonder how even a Doctor of Divinity can apparently persuade himself that to strive and to cry and to 'hustle' morally is the chief doctrine of the Gospels and is the main secret of Jesus.

The Rev. Dr. Rashdall, whose work is however very different indeed both in spirit and in kind, offers another illustration of the self-same tendency (pp. 390-391). The omnipotent and omniscient infinite God of Christian theology has of course given rise to well-known difficulties. And an exit from these difficulties may naturally be sought by the removal of one or more troublesome attributes. If God is made finite, and, I presume, in part ignorant and in part impotent, and in short is reduced in principle to the level of one creature among others, certain objections, it is clear, will at once lose their force. Thus, if you want to treat God as one person over against others, your readiest course is to deny that he is infinite. And if you wish to relieve any person of moral responsibility, it is a well-known expedient to seek to deprive him either of knowledge or of power. But there are unfortunately obvious objections and difficulties on the other side. And these obvious difficulties, I presume, were present to and moved the minds of the more orthodox theologians. In any case surely they exist, and surely there can be no excuse for ignoring them.

haps do no harm; and they can never perhaps fail to be more or less deserved. But these protests and these criticisms, it seems to me, are one thing, and the setting up and the preaching of some counter-onesidedness is surely another thing. And before anything, no matter what it is, is proclaimed as a new gospel, it will be better, I think, to ask if account has been taken of objections, objections which at least exist, even if they are not old and obvious.

NOTE.—It is better perhaps, even at the cost of some repetition, to add a few words on the difference between practical and non-practical activity. The doctrine which I have advocated is briefly this, that the above difference exists and that on the other hand it is not absolute.

There is in the first place no activity which in the end is merely practical, and the merely practical would in the end be nothing real. It would, so far as I see, be the maintenance and alteration of existence in complete abstraction from the quality of the existence and the change. Its end would be to produce the greatest quantity of bare doing. How far such an ideal is in principle self-consistent, I will not inquire, for certainly it is an ideal which no one would accept, no one at least who understood clearly what it means. And the assumption that such a practical activity exists anywhere must be rejected. You will find no creature out of whose life you can strike quality as irrelevant. However low you descend you will reach no stage where the 'what,' that is sought and done, is subordinate to bare doing, and except as a means to bare doing is worthless.

And that at least not everything in life is thus practical or a mere means to practice seems manifest when we glance at the facts of life. We need not appeal here to that which in the narrower sense is intellectual or æsthetic. The pleasure of rest after accomplished labour, the song that gives vent to the joy in being, the heightened self-feeling from the perceived presence of one's kind—it seems strange to insist that these things are barely practical. For myself I prefer to think that each creature has its own quality and its especial delight, and that in the quality of that which fills its self it finds and it seeks its own fulfilment.

This is a view which, I admit, I did not learn from philosophy, and, even if it were refuted by philosophy, I could not forget what I imbibed in my youth. I learnt that Jehovah found his work good, and took pleasure in it because it was so, and not merely because his own activity had been something extreme, or because (as a Personal Idealist might say) he had been 'young strong and virile'. And I learnt from

the poets that every life in its own quality partakes of the divine. There is nothing so humble or so vile as to have no nature of its own in which it finds happiness, but every creature realises, however strangely, what is at once its special being and something beyond it. And every creature rejoices not merely because so much is in doing or has been done, but because its own need is satisfied or because the object of its own particular desire has become reality.

Any such doctrine is divided by a chasm from the creed of the Personal Idealist, the Personal Idealist, that is, who comprehends his own principle. To his mind, when the male creature is drawn towards its mate, there is no feeling of an over-mastering end beyond self. There is no object to which passion ascribes, for however fleeting a moment, an infinite worth. Nor is there a common existence where love, however imperfect and rude, gives in an object the abiding sense of an inward contentment. In the view of the Personal Idealist no object counts for any more than a worthless means to one's own mere activity. The object is recognised as something which is good barely because it serves the turn, as something which in short has value just so far as it is found to be practicable (*Pers. Id.*, p. 98). The ideal is, in short, the abstraction of activity and of function from the quality of its object. This abstraction represents perhaps to most of us the essence of that which is false in theory and sordid in conduct. And the reason why the Personal Idealist is unaware of such a radical collision, is that he has made no attempt to realise the true meaning of his own doctrine.[1]

On the one hand no activity is barely practical. There is in the end no activity which exists for its own sake as a process, without any regard for its own nature and quality, and in abstraction from all that can be regarded as a product. On the other hand we may say that in the end all activity is practical. For there is nothing which is apart from process and change in existence. And in one of its aspects it is possible to view the whole Universe as a will which everywhere asserts itself practically. Between that which is practical and that which is not practical we thus seem in the end unable to maintain any difference.

And there is in truth no such difference which is absolute. On the other side a relative distinction may be useful and necessary, and I will point out the principle on which this may be drawn. If you like to say that the difference in

[1] The passage referred to, which deals with Identity, is obviously full of intellectual confusion, whatever we may think of it otherwise as a sample of academical literature.

any given case is a matter of degree, to some extent I am able to accept that contention.

As against a non-practical activity my activity is practical when and so far as its product directly qualifies the existence which is altered. When I am active it is plain that I make a change in my existence. Now can the product of my activity be taken as the adjective of my changed existence? So far as this can be done my activity is practical, and otherwise not so. When I dig the ground I make a change in my world, and it is my world which so far is altered. When I morally order myself, the moral arrangement becomes the adjective of my own existence. When I eat and drink, the result is that food and drink have been consumed, and that on the other side I am changed by having eaten and drunk. When I unite with other men in supporting and developing a social community, the result of what we do is, at least in the first instance, an adjective of our organised existence. Thus and so far the above activities are practical distinctively. On the other side when I perceive a horse that is present, or think of one that is absent, certainly by my so perceiving or thinking my existence is changed, but the alteration cannot be said to consist in the horse. For my perception or thought has not, on any sane theory, brought the horse into being. My activity therefore is so far not practical. And when after digging the ground I contemplate it, and when I say 'My work is good,' my activity here has ceased to be practical. For I can hardly so far be taken to have altered the ground or myself, and to have given to either of them a new quality not owned before. And, in short, all apprehension, whether theoretical or in the widest sense æsthetic, will fail to be practical except incidentally. It is practical only so far as what comes in it is the adjective of that existence into which it has come and which it has changed. Thus an activity is not practical because existence has been changed by it. It is practical only so far as the changed existence can be taken as qualified by the product of the activity. And again in a secondary sense anything is practical so far as it is taken as subserving a practical change. On the other hand, so far as the change made is, in a word, a revelation, to that extent the change is not practical. Thus the apprehension of an object is never merely practical. Again when I make a spade purely for the sake of digging, the end is practical, and a perception of the means, though not practical itself, is subordinate to practice. But, when I adorn the handle of the spade and so regard it with pleasure, my perception and my pleasure have ceased to be practical.

For the spade has now been revealed to me so far as a joy in itself. And it is an object which, apart from desire for its possession, we may call 'in itself desirable'. Wherever, in short, in the life of the family or of society, wherever in love morality and religion or beauty and truth, I have a product which is more than a mere quality of what is altered, I have something which so far goes beyond practice. I so far have something which is a revelation and is not a mere doing or something done. But we have entered here on a theme which goes far beyond the limits of this article.

In any case the abstraction of mere doing is not a rational end. The good, in other words, so far as it is good in itself, is so far not *merely* practical. And as good in itself, we may believe, it is revealed in some measure even to the humblest. And as good in itself, which in different senses and in various degrees is more than the mere adjective of passing events and of finite existence, it is apprehended by and becomes clear to the human intellect. On the other hand I must repeat that no such distinction is absolute. Thus to the religious mind everything which is good is but the bringing to light of God's perfection and glory; and yet to the same religious mind nowhere is God more really present than in that will for good which in myself and others makes changes in the world. This double nature and aspect of things will remain foolishness to the Personal Idealist, and it cannot be held consistently in human life; but the constant sense of it together with the endeavour to realise it in thought, may perhaps be said to make the life of philosophy. And thus philosophy is hard, while to think one-sidedly and to make theories which ignore the deepest instincts of our nature, is not so difficult. Philosophy always will be hard, and what it promises even in the end is no clear theory nor any complete understanding or vision. But its certain reward is a continual evidence and a heightened apprehension of the ineffable mystery of life, of life in all its complexity and all its unity and worth. And I have not myself cared to ask if philosophy suffers violence, or lavishes after all its best gifts on 'the young the strong and the virile'.

II.—MEINONG'S THEORY OF COMPLEXES AND ASSUMPTIONS (II.).

By B. Russell.

Meinong's book, *Ueber Annahmen*, is very important, for it introduces to notice a hitherto almost wholly neglected class of facts, and adduces such a wealth of evidence in their favour that their existence, henceforward, can hardly remain open to question.

The work is divided into nine chapters: On first principles, the characteristic functions of the sentence, the most obvious cases of assumptions, inferences with assumptions, the objectivity of the psychical, the apprehension of objects of higher order, the Objective (*das Objectiv*), the psychology of desire and value, elements of the psychology of assumptions. The last two of these chapters, however important in themselves, are devoted chiefly to themes lying outside epistemology, and will therefore be omitted in the following discussions; the other chapters all contain much that no theory of knowledge can safely neglect.

Chapter i. defines the class of facts to be dealt with. Two marks distinguish judgment from mere presentation: one is belief or conviction, the other is a certain attitude in regard to the opposition of affirmation and negation. Now although the first of these marks always implies the second, the second does not always imply the first: the main thesis to be established is, that affirmation and negation can occur without conviction, and do so occur in what are to be called "assumptions" (*Annahmen*) (pp. 2-3). An assumption or hypothesis might seem at first sight to be a mere presentation, but this view Meinong, erroneously in my opinion, believes to be capable of disproof. Direct perception alone, he remarks, now seems to him sufficient to establish the difference between a supposition and a presentation; but a formal proof can be obtained from the case of negative assumptions, as, for instance, "Suppose the Boers had not been conquered".

Negation is never a matter of presentation: this may be taken as self-evident (p. 6). But how, in that case, are we to deal with such notions as "not-red"? These are commonly regarded as presentations or concepts. But if so, is the negative element in the act, the content, or the object? Plainly not in the act or content, for we cannot have two kinds of presentation of one object. Thus we shall have to assume a negative object "not-red," and this will have to be an object of higher order, for it cannot be thought of without at the same time thinking of red (pp. 6-8). If there are negative objects, they are plainly not objects of experience. To conceive not-A, we require not only A, but also another object M, of which it is judged that M is not A.[1] We might suppose that the negative, though a product of judgment, is itself an object of presentation, which can be apprehended without judgment, like "different from A". And this might tempt us to identify diversity and negation; but here inspection shows that we should be mistaken: "there is no *perpetuum mobile*" does not mean "whatever exists differs from the *perpetuum mobile*"; and "x is not an a" cannot, by any analysis, be found to contain diversity. Consequently negation is a genuine element in a negative judgment (pp. 9-11). Returning now to our supposed object not-A, this, being an object of higher order, and not an object of experience, would have to be a well-founded object. But in that case, it would have to be connected necessarily with its fundament; yet many negations, *e.g.*, "stones do not rise," have no necessity. Consequently not-A is not a well-founded object, and is therefore not an object at all (pp. 12-13). It is true that "something of which the judgment holds that it is not red" is a negative object, which we may call not-red; but it involves the negative judgment and its relation to that of which it holds, and such psychological and epistemological elements could hardly be involved in "not-red" without being quite plainly visible, whereas, when we examine so-called negative presentations, we find (except perhaps in rare cases) no trace of any such roundabout process. Thus it is to be concluded that the opposition of yes and no makes no difference to the *act* of presentation, is only to be applied in an artificial manner to the object and therefore to the content of presentation, and never arises within mere presentation (pp. 13-14).

[1] Observe that the M here must be, in mathematical language, variable: *i.e.*, no particular object will fulfil the purpose, but the notion "*any* object" is required.

The above argument underlies much of what follows, and must therefore be examined with some minuteness. The contention derived from necessity is open to the same objection as was urged above in the same connexion ; and if this objection is valid, the whole argument, as a piece of reasoning, collapses. But further points remain. In the first place, such an expression as " not-red " is ambiguous, for it may apply to whatever is not red, or to whatever is not redness. In the latter sense, the thing which is red is included under " not-red ". And in this sense, diversity does seem prior to, or at least co-ordinate with, negation. If A is an object, and not-A means " whatever is not identical with A," then not-A means " whatever is diverse from A ". Now diversity may, of course, be defined as the negation of identity ; but this course, though suitable to formal logic, is perhaps hardly reconcilable with inspection, according to which diversity would by most people be judged fundamental. If, on the other hand, A is a predicate, not-A will usually mean whatever does not have the predicate A. It is quite necessary to keep these cases apart in considering not-A, for they give quite different kinds of objects. But the second, if not the first, involves the notion " something of which the proposition so-and-so is false ". Meinong appears to reject such a meaning for not-A, on the ground that it involves psychological and epistemological elements. For my part, I cannot see that any such are involved : of any object x, if A is a predicate, either " x has the predicate A " or " x does not have the predicate A " will be true quite objectively. But this raises the question whether propositions are psychological, to which I shall return later. Assuming, for the present, that they are not, it will follow that not-A, when A is a predicate, is also a predicate, and is just as much an object as A is, but an object which is a complex.

Admitting, as it seems we must, that negation can only be derived through propositions, there is an important distinction to be made, without which confusions will become almost unavoidable. To deny a proposition is not the same as to affirm its denial. The case of an assumption will itself make this clear. Given any proposition p, there is an associated proposition not-p. Either of these may, as Meinong points out, be merely supposed or assumed. But when we deny p, we are not concerned with a mere assumption, and there is nothing to be done with p that is logically equivalent to assuming not-p. And direct inspection, I think, will show that the state of mind in which we reject a proposition is not the same as that in which we accept its negation. Again,

the law of excluded middle may be stated in the form: If p is denied, not-p must be asserted; this form, it is true, is too psychological to be ultimate, but the point is, that it is significant and not a mere tautology. Logically, the notion of denying a proposition p is irrelevant: it is only the truth of not-p that concerns logic. But psychologically, it would seem, there are two states of mind which both have p for their object, one affirming and the other denying; and two other states of mind, having not-p for their object, one affirming and the other denying. The assumption of p or not-p again has the same object as the affirmation or denial, but here the object is merely considered, not affirmed or denied.

The importance of the above distinction, in the present case, lies partly in the help which it affords in deciding a question as to which Meinong, though he nowhere discusses it, now appears to me to have decided rightly, whereas Frege, who approaches the subject through logic, has apparently come to the opposite conclusion.[1] The question is this: Does an assumption have a different object from the corresponding judgment, or does it merely have a different attitude to the same object (the proposition)? The case of belief and disbelief shows that it is possible to have different attitudes to the same object, and thus allows us to accept the view, which is *prima facie* the correct one, that there is no difference in the object. I have discussed elsewhere[2] the problems raised by this decision in the case of inference and hypothetical propositions.

One other preliminary point remains. Is there, in addition to the assumption and the assertion of a proposition, another attitude, in which the proposition is merely the object of a presentation? Meinong decides this question in the negative, for he holds that there is no presentation of a proposition or a complex (*v. inf.*), and that "the ill man" and "the man is ill," of which the first is an assumption, the second a judgment, have the same object, though they do not express the same state of mind (pp. 24-25). In this point Frege, if I am not mistaken, again adopts the opposite opinion, for he regards "the ill man" as referring to a different object from "the man is ill" (*loc. cit.*). I agree with Meinong in identifying these two objects, but I differ from him in that I do not see in what sense an assumption is not a presentation of a proposition. But this point will occupy us again at a later stage.

[1] See, *e.g.*, his *Grundgesetze der Arithmetik*, vol. i. (Jena, 1893), pp. x, 7-10.

[2] *Op. cit.*, pp. 503-504.

Meinong's second chapter, after a brief discussion of signs, investigates the characteristics of the sentence. Not all sentences express judgments—*e.g.*, questions and imperatives (p. 26). Dependent clauses also do not express judgments, for they are not asserted. "I expect it will rain to-day" does not assert that it will rain; "it is false that so-and-so" is not compatible with "so-and-so". Clauses may be attached to a word in a way which leads to no judgment at all, as in "the opinion that so-and-so". Also, "if p, then q," and "p or q," do not assert either p or q. What is *expressed* by language is a thought, but what is *indicated* is an object: even when a man does not assert, we do not usually infer the speaker's state of mind—for example, when we hear a work of fiction read. In this case, as in the above cases of dependent clauses, it is necessary to replace judgments by assumptions.[1]

The third chapter enumerates some of the more obvious instances of assumptions. The hypotheses of mathematical propositions, literary works of art, children's pretences, lies, and (instructive collocation) the theories of philosophers, can none of them be understood without assumptions. When a geometrical argument begins with "let a right-angled triangle be given, having one of its sides double of the other," we have to do with a proposition which is not asserted: hence we have an assumption, not a judgment. Scientific hypotheses again, at least in their inception, are unasserted, and afford instances of assumptions. When children pretend, it is quite plain that they are not taken in by their own fancies: these fancies constitute assumptions; and the same applies to reading a novel. A liar wishes to produce, in another, belief in a proposition which he himself does not believe: if he is to be successful, he will have to entertain the assumption of the proposition in question. And this is why liars tend to believe their own lies—a mere presentation would not be so liable to turn into a judgment (p. 50). In understanding the theories of a philosopher whom we are reading, the same process is usually required: we *may* make the opinion in question the object of a presentation, and thence of a judgment based upon this presentation, or we may (and this is more usual) entertain the assumption which has the same object as the opinion to be examined (pp. 49-50). Meinong now returns to the subject of questions, which he had already discussed in the preceding chapter. A question expresses, if the answer to it is yes or no, the desire to have

[1] *Cf.* also p. 272.

an assumption turned into the corresponding judgment or its opposite (p. 54). And in all desire, since the opposition of yes or no occurs in the object of desire, we are necessarily concerned with an assumption: for mere presentation is inadequate, and the truth of what is desired is obviously no part of desire (p. 55).

Chapter iv., on assumptive inferences (*Annahmeschlüsse*), is very important for the analysis of reasoning. It begins by remarking (p. 61) that, though the *forms* of inference have been elaborately studied by formal logicians, the question, What facts were concerned in these inferences? has been left for the present time. If Meinong were himself a formal logician, he might have added that the forms of inference were studied in the past with the same blindness and inadequacy which the failure to analyse inference would lead one to expect. In our day, both defects have been largely remedied. Meinong does not know that Frege—a most unduly neglected author—had already, simply through analysis of inference, been led to distinguish assumptions from judgments.[1] It is in this connexion, more obviously perhaps than in any other, that assumptions can be seen to be absolutely indispensable.

There is very grave difficulty, in this subject, more, indeed, than in any other subject with which I am acquainted, in keeping perfectly clear the distinction of logic and theory of knowledge; this distinction, nevertheless, is hardly anywhere so indispensable, owing to the very startling lack of parallelism between the two standpoints in this matter. I have discussed elsewhere[2] the logical questions involved; in the present discussion I shall mention them only where confusions seem most likely to occur.

The fundamental logical fact, in this subject, is the relation of implication between propositions, expressed by "p implies q," or "q follows from p". This relation, as is universally admitted, does not require either p or q to be true. But when p is true, we get the principle used in inference, namely, "*p, therefore q*". Here q is asserted with a reference to p; and it is a fact that, by this process, many propositions can be seen to be true, as to which immediate inspection gives no decision. Meinong holds that a similar operation is possible with assumptions, *i.e.*, an operation in which (in virtue of the

[1] The distinction is already to be found in his "Function und Begriff," p. 21 (*Jenaische Gesellschaft für Medicin und Naturwissenschaft*, Jena, 1891).

[2] *Op. cit.*, §§ 38, 52, 477 ff.

fact that p implies q) we assume q with the same reference to the assumption of p as is involved in a true *therefore*-inference; and in this he sees the essence of the so-called hypothetical judgment, which, he declares, is really not a judgment at all (p. 89). There are thus three things to be distinguished, according to Meinong: (1) the relation of implication, (2) the *therefore*-inference, which operates with judgments, (3) the *if-then*-inference (as we may call it), which operates with assumptions.

The distinction of (1) and (2) is very important, and quite indubitable; but (3) appears open to doubt. Every *if-then* sentence, it seems plain, asserts something, and is either true or false; it is undeniable that the two propositions with which it is concerned are assumed, not asserted, but it seems also undeniable that a relation is asserted between them. Meinong affirms (p. 87) that such relations can only be affirmed, and that when we attempt to deny them we really deny something else. In testing this assertion, it is necessary to point out that almost all Meinong's instances contain variables, and therefore deal with what I call *formal* implication. "If the sun shines, it need not therefore be hot," and "if quadrilaterals are equilateral, they need not be squares" (p. 88), which he suggests and rejects as denials, both have this nature. In the first, a variable time is involved; in the second, a variable quadrilateral. He asserts (*ib.*) that *necessity* is denied in these propositions, whereas necessity is not a constituent in *if-then* statements. I have already remarked that necessity, in the old modal sense, appears to me inadmissible; there is, however, where propositions containing variables are concerned, a meaning for necessity, and that is, that the said propositions hold for all values of the variable. Now "if the sun shines, it is hot" does assert something for all values of the variable; and this is what is denied in the suggested instance. Thus in the sense in which necessity occurs in the denial, it occurs in the affirmation also. Meinong discusses, as obviously of quite another kind, propositions where the connexion is temporal, as "when a train leaves the station, a bell rings for the next station". But these are precisely of the same kind as the other statements; the proposition is really the following: "If x is a time at which a train leaves the station, x is a time at which a bell rings for the next station". And it is to be observed that where variables occur, as in all these instances, neither hypothesis nor conclusion is a proposition at all, but only becomes one by giving a definite value to the variable. What is asserted is, that an implication holds *in all cases;* and it

is, I think, from failure to perceive this, that the denial seems to Meinong so very different from the affirmation.

The notion of assumptive inferences seems, it must be confessed, to derive some support from observation of what actually occurs when we follow a chain of reasoning without assenting to the premisses. There is, at every stage, first the recognition of the implication, then a new beginning with the conclusion, then a new recognition of an implication with the previous conclusion as premiss. But what happens is, I think, as follows. First we assume a proposition p; then we judge that p implies q; then we assume q, and then we judge that q implies r. But what distinguishes this case from a *therefore*-inference is, that we might just as well assume q without perceiving that p implies it; whereas, in the other case, we actually *judge* q, which we do because of the implication. It is of course true that the *cause* of our assuming q may be, in part, our perception that p implies it; but this cannot be the *ground*, because assumptions do not require grounds and are incapable of having any.

With regard to what Meinong calls assumptive inferences, in which, by means of implications, we pass from one assumption to a second, which has what he calls relative evidence, there is a difficulty, which he himself recognises (pp. 261-265), in the fact that inconsistent assumptions can be combined, and that the rules of inference cannot bind our freedom of assuming. He seems to regard the making of self-contradictory assumptions as very rare; but, on his own theory of negation, it is implied in the statement of the law of contradiction itself. For this affirms that, if p be a proposition, p and not-p cannot both be true, *i.e.* it is false that p and not-p are both true. But this, being the negation of "p and not-p are both true," can only be the outcome, on his view, of the assumption that p and not-p *are* both true (pp. 105-108). In view of the fact that assumptions are thus free, I cannot understand how the notion of assumptive inference, as distinct from judgments of implication, can be maintained.

The part of assumptions in inference, however, is very great, even if this particular contention of Meinong's be false. For, whenever we judge that p implies q, we necessarily use the assumptions of p and q, since we are not judging either p or q; and this applies even if, in another judgment, we do actually assert p, and thence q. If there were no assumptions, inference would be inexplicable; and this is peculiarly evident where, as in the case of a *reductio ad absurdum*, premisses and conclusion are actually disbelieved.

The fifth, sixth and seventh chapters are closely interconnected, and must be considered jointly. The fifth, on the objectivity of the psychical, examines the relation of object and content in presentations, assumptions and judgments. No psychical occurrence, and in particular no presentation, is without an object; but in order to explain how a presentation comes to have an object, assumptions are indispensable (p. 93). It is well here to start from judgment. If I judge rightly that I feel pain, then the pain does as a matter of fact exist; and if I make a correct judgment which is not existential, but affirms that something subsists, then again the object must really subsist: in the first case the judgment has what may be called by the traditional name of transcendence, in the second case quasi-transcendence. In such cases the object of the judgment is that which is rightly affirmed to exist or subsist (pp. 94-95). But in the case of false affirmative or true negative judgments, this account of the object becomes inapplicable: for *ex hypothesi* these judgments cannot have the objects they would have if true and affirmative. The objectivity, in such a case, seems to belong only to the presentation involved; but the object of the presentation may not exist, and there seems to be only a capacity for an object. But capacities, though facts, are not perceivable, whereas the objectivity of presentations does seem perceivable (pp. 96-100). In this difficulty, assumptions give the solution. The difficulty concerns only presentations and negative judgments; positive judgments, true or false, serve obviously for the apprehension of an object. But *pure* presentation is not directed to an object at all: it is only potentially objective.[1] When we seem to perceive direction to an object, this arises through the presence of an affirmative assumption: the object is presented "as if it were real". If not, the presentation has only *potential* objectivity. The introduction of assumptions in place of judgments enables us, in the above manner, to give objectivity even to such presentations as the round square, for assumptions are not bound by the law of contradiction. Thus the objectivity of a presentation is its capacity for being the basis of an affirmative assumption (pp. 101-103). And this applies also to negative judgments and assumptions; these are always based upon the corresponding positive assumption, and are only made when this has suggested itself (pp. 105-108).

[1] *Gegenständlich* is used by Meinong to mean *having* an object, not *being* one.

In the above theory, there seem to me to be certain errors, which it will be well to examine at once. In the first place, not all propositions assert or deny being or existence. Meinong appears to hold that when a relation R is affirmed to hold between *a* and *b*, as in (say) "*a* is the father of *b*," what is really affirmed is the being or subsistence of the relation.[1] But there are grave objections to this view. In the first place, it must be the relation particularised as relating *a* and *b*, not the abstract relation of paternity, whose being is supposed to be affirmed. But there are logical reasons for supposing that there are no such entities at all as particularised relations; most of these I have set forth elsewhere (*op. cit.*, § 55), but another is derived from false propositions. If what is actually meant by a relational proposition is the being of the particularised relation, then, when the proposition in question is not true, it must be meaningless: for it affirms the being of what, *ex hypothesi*, does not have being, and therefore there is nothing of which it affirms the being, and therefore it affirms nothing and is meaningless. In other words: every constituent of a proposition, whether this proposition be true or false, must have being; consequently, if the particularised relation is a constituent of the proposition in which it is supposed to occur, then, since such a proposition is significant when it is false, the particularised relation has being even when the terms are not related by the relation in question. Hence the being of the particularised relation is not what is asserted. It may be thought that this point has been unduly laboured; but it has a very important consequence. Since not all propositions assert or deny the existence or subsistence of an object, we cannot always take such object as the object of a judgment; and hence it is an easy step to the conclusion that we can never do so. What I wish to affirm is that the judgment or assumption "A exists" has as its object, not A, but the existence of A, *i.e.* that which, in chapter vii., Meinong calls the *Objective* of the judgment or assumption. It would follow that there are not, as he appears to hold, two kinds of objects of a judgment, the one the thing judged about, and the other the fact affirmed concerning it. In the above case, "A is the father of B," we have already seen that the paternity is

[1] In a later passage (pp. 143-146) Meinong says that he formerly held this view, but has now seen reason to abandon it. He holds, however, that no evil results can follow, as a rule, from assuming it when convenient. The above seems, nevertheless, to constitute a case where it does lead to errors, and where (as often happens) the influence of an opinion has persisted after the opinion has been renounced.

not the object, and it is obvious that neither A nor B is so: the conclusion remains that, if there is an object, it can only be the whole proposition. And this result, if valid, seems to throw doubt upon the view that presentations only acquire objects through assumptions, which, in any case, has a decided appearance of paradox. It is true, of course, that redness, *e.g.*, is very difficult to think of without the assumption of its existence, which necessarily occurs in any visualising of a red colour. Yet if, as Meinong admits (p. 102), there are pure presentations, it is difficult not to suppose that the presentation of redness has redness for its object. And in the case of objects incapable of existence, a similar conclusion seems even more evident.

Chapter vi., which is very important, deals with the function of assumptions in the apprehension of objects of higher order; it deals also (though the connexion is rather hard to see) with the nature of the difference between intuitive (*anschaulich*) and unintuitive presentation. The former problem is one in which, though I find few points to criticise in the discussion, a direct logical method seems to me to lead far more directly to the goal. Complexes, as soon as we examine them, are seen to be always products of propositions: one might be tempted to describe them, rather loosely, as propositions in which the truth or falsity has been left out. In any case, no analysis can be made of a complex except by reference to one or more propositions. This being so, it follows that the apprehension of a complex involves the apprehension of a proposition; and since the assertion of the proposition is not required, its assumption will be all that will be relevant. This is the direct logical road. The other way, which is pursued by Meinong, is to examine our apprehension of complexes, and to show that it contains or involves the apprehension of propositions. The supposed advantage of this method is, I imagine, that our apprehension exists, and is therefore supposed more amenable to inspection: but it is impossible to apprehend an object unless the object itself is amenable to inspection. The supposition is equivalent to assuming that we can find out about otherwise unknowable objects by examining our knowledge of them. Meinong, though he does not hold that only what exists is immediately knowable, seems still to feel that it is safer and more empirical to begin with what exists; and this recommends the psychological as opposed to the logical method. But except a certain cumbrousness in some problems, this method does not have any inevitable bad consequences.

The opposition of intuitive and unintuitive presentation,

Meinong says, occurs only in the presentation of complexes: that of simple objects is of neither kind (pp. 114, 122). But the same object can be presented either intuitively or unintuitively; hence the distinction must not be sought in the object. And since it cannot lie in the act of presentation, it must lie in the content. It would seem that the same partial contents occur in both, but are combined into different complexes by a difference in the real relations existing between them (pp. 112-113). The intuitive combination seems natural, and offering itself without any act of ours; the other, more artificial, and produced, as a rule, by our intellectual activity. The first sort of combination he calls *Zusammensetzung*, the second *Zusammenstellung*. (I shall speak of the resulting complexes as *compounds* and *composites* respectively.) The first sort may be typified by "the red cross," the second by "the cross which is red" (pp. 116-117). But unintuitive presentation can also form "the cross which is not red," which intuitive presentation cannot form. The presence of the negation indicates the need for an assumption; and the affirmative "cross which is red" similarly requires an affirmative assumption. Thus all unintuitive presentations involve assumptions (pp. 118-119); and the same must be held concerning intuitive presentations, though where these are perceptions they involve judgments (pp. 120, 121, 137, 138). It is impossible to have a *presentation* of a and b standing in the relation R, for we must have R rightly related to a and b, and so on, whence an endless regress of a kind which, so long as judgments or assumptions are not introduced, is logically objectionable (pp. 122-123). This is reinforced by a long and difficult argument from the nature of knowledge, which, though I am not sure of understanding it, I shall do my best to reproduce. If truth requires the correspondence of ideas with facts, it must be the correspondence of the immanent objects of ideas with facts, not of the contents of ideas: for the content of the presentation of a square table is not square. When such correspondence subsists, there is a relation which we may call that of *adequacy*. A presentation is adequate when it is legitimated by a self-evident affirmation; but except where affirmative knowledge is concerned, there is a merely immanent object, and we say that the object is adequate to the presentation, not *vice versa*, for the presentation is here prior. Now the relation of content and object is ideal, not real, and ideal relations are never affected by real relations between their terms. Hence, taking as objects the contents of the presentations of a and b and R, no real relation between them can

substitute for them, in presentation, the presentation of the one object "*a* and *b* in the relation R"; nothing we can do to them will give them the relation of adequacy to this object unless they have it already; consequently there is no *presentation* of this object at all (pp. 124-129).

This argument involves many points calling for criticism: in the first place, the idea of adequacy seems bound up with the notion that the object of a presentation is something which forms part of the presentation, and may be rightly called immanent. And as regards judgments, there seems no difference in the relation to their objects when they are correct and when they are incorrect; the difference is rather in the objects, which are true propositions in the one case, and false propositions in the other. Again the opposition of ideal and real relations seems to be bound up with the notion of necessity, and to be not capable of precision. But leaving all these points aside, there remains a simple fact, which forms probably the basis of the argument. The proposition "*a* has the relation R to *b*" is an object not to be obtained by juxtaposing *a* and R and *b*; it is a new object, having that special kind of unity that characterises propositions. And hence the presentations of *a* and R and *b* will not, of themselves, yield this object. But I do not see why the thought of this object should not be called a presentation; indeed, the question arises whether assumptions are anything more than presentations of propositions. It is the fact that propositions, and the complexes formed by means of them, have a kind of unity which, apart from truth and falsehood, distinguishes them among objects; but I do not see that the attitude towards a proposition, when it is assumed, differs in any way from the attitude towards objects which is called presentation. In short, the arguments adduced do not, to my mind, prove that the difference of an assumption and a presentation is not wholly derived from the difference between their objects.

By introducing judgments or assumptions, Meinong continues, it becomes possible, which so long as we confine ourselves to presentations it is not, subjectively to combine a *superius* with *inferiora* (p. 134). I should express what I believe to be the same fact as the one Meinong is analysing, by saying that the combination of *superius* and *inferiora* is what constitutes a proposition, and that therefore any state of mind, of which the object is or contains such a combination, has a proposition as the whole or part of its object. And a state of mind which has a proposition as the whole of

its object is either a judgment[1] or an assumption, the latter being merely the presentation of a proposition, and differing from judgment both as regards the act and content and as regards the relation of content to object.

In the same chapter, Meinong raises a difficult point, which seems to involve the inner essence of relations. In the presentation of "the cross which is red," the cross and the red are obvious, but there seems to be no presentation of their relation (p. 142). This fact leads Meinong to reject the view that a judgment of relation asserts the being of the relation (pp. 144-145)—a view which we have already seen reason to think erroneous. It leads also to the conclusion that the concomitance of complexes and relations cannot be maintained universally, since a complex may be thought of without any presentation of the relation (p. 147). The fact itself, so far as I am able to judge from inspection, appears to me to be true. We can and do, apparently, think of objects in a certain relation, without thinking of the relation at all. And apart from inspection, the endless regress seems to prove that this is so; for if not, we should have to think also of the relation of the relation to the terms, and so on, which would make the apprehension of objects in relation impossible. This is, we may conjecture, the reason why common sense and many philosophers regard relations as less real, less substantial in some sense, than their terms. There is probably some logical fact corresponding to this, but I am at a loss to discover what it is. In some sense which it would be very desirable to define, a relational proposition seems to be *about* its terms, in a way in which it is not *about* the relation. And we distinguish between "A is the father of B" and "fatherhood holds between A and B": the latter, but not the former, is about fatherhood as well as A and B, and asserts, while the former does not, a relation of fatherhood to A and B. Hence, although, at first sight, the difference might seem to be a merely subjective difference of emphasis, it results that there is a real logical difference; and this difference may be relevant to the above question.

Chapter vii., on the Objective,[2] points out that judgment, in addition to what has hitherto been called its object, has reference also to something else which is like an object, namely to the something which is known, the something indicated by the whole sentence. If I say "there was no

[1] Including, for the moment, disbelief under *judgment*.

[2] *Das Objectiv*. I shall use a capital O to distinguish this technical substantival sense from the usual adjectival one.

disturbance," something positive is affirmed, which is plainly not the disturbance, since this is denied. We can say: "It is a fact that there was no disturbance"; thus "that there was no disturbance" is an object in a new sense: this Meinong calls the *Objective* of the judgment "there was no disturbance" (pp. 150-153). When the judgment is false, the Objective is merely immanent, just as the object is in similar cases: the judgment always *has* its object and its Objective, but these do not necessarily have being—when the Objective is false, we can only say that the judgment is *directed towards* an Objective (pp. 154-155). This Objective of the judgment is what (following Mr. G. E. Moore) I have called a proposition: it is to the Objective that such words as true and false, evident, probable, necessary, etc., apply (p. 174). That there are Objectives is made abundantly plain by instances. When we say, "it is certain that the evidence is not concluded," it is not the judgment, but the Objective, that is certain. If A does not exist, we can say "that A does not exist, is"—or, as would be more natural in English, "there is the non-existence of A". When we say, "I believe that so-and-so," it is the Objective so-and-so, not the judgment, that we believe. (In all such cases, as is plain, we are really concerned with an appeal to inspection, which, to my mind, makes the Objective perfectly visible. If I say "A is the father of B," I am not concerned with my own judgment, but with something quite outside it: in this sense, a judgment, like a presentation, has a reference to something other than itself, namely the fact asserted; and this is Meinong's Objective.)

A curious difficulty arises for Meinong from the conclusion that there is no presentation of a proposition. The Objective, in his theory, cannot be the object of any presentation; and yet it can be the object of a judgment, as in "p is certain," where p is an Objective. It would follow that we can think of something, namely an Objective, without having any presentation of it (p. 159). Some possible escapes are suggested from this paradox, but their acceptance is not urged upon the reader. Now I confess that, not being myself a psychologist, I have much difficulty in understanding what Meinong means by presentation; and the possibility here suggested adds to my difficulty. It is, therefore, with much diffidence that I venture upon criticism in this matter. But I fail to feel any force in the argument against the presentability of complexes. If aRb denotes "a has the relation R to b," Meinong proves, I admit, that no operation will produce the presentation of aRb out of those

of *a* and R and *b*. But the further argument that there is no presentation of *aRb* seems to be made in forgetfulness of the Objective. For the presentation of a complex need not be a complex of presentations, when we remember that the complex is the Objective, and that therefore, if there is such a presentation, the complexity is primarily in the object of the presentation, *i.e.* in the Objective. It is, I admit, difficult to suppose that the content of the presentation of *aRb* does not contain those of *a* and R and *b*, for every property of the object seems to demand a strictly correlative property of the content, and the content, therefore, must have every complexity belonging to the object. Nevertheless it is not impossible to maintain that the content of the presentation of *aRb*, though it plainly involves those of *a* and *b*, does not involve that of R. No doubt difficulties might be found in this view, but I cannot think they would be greater than the difficulty of an unpresented object of thought. And, as Meinong's own arguments show,[1] this view is one which whether logically permissible or not, certainly commends itself to direct inspection. If we adopt this view, an assumption will be nothing other than the presentation of an Objective. Nevertheless, in his last chapter, Meinong asserts that the way in which, in chapters i. and iii., assumptions first occurred, proves beyond all doubt that they are more than presentations (p. 276), and that, in fact, they are nearer to judgments than to presentations; they may, he says, be described as judgments without conviction, but it would be nonsense to describe them as presentations determined with respect to yes and no (p. 277). I should reply by distinguishing three kinds of opposition of yes and no, of which two are objective, and belong to the Objectives of assumptions, while one is subjective, and belongs to judgments but not to assumptions. Given a proposition *p*, there is first its truth or falsity: this belongs to the Objectives of assumptions. Next there is the opposition of *p* and not-*p*: this also belongs to the Objectives of assumptions, for either *p* or not-*p* may be assumed; and this is the opposition of yes and no which Meinong always employs in his arguments on this point. Thirdly, there is the subjective opposition of yes and no, which is that of belief or disbelief: either *p* or not-*p* may be believed or disbelieved, whether true or false; this is the opposition which specially characterises judgment, and is absent in assumption. Thus the opposition of yes and no, in the two senses in which it applies to assumptions, belongs

[1] *Cf.*, *e.g.*, p. 142.

to the object, and derivatively to the content, but not in any sense to the act; whereas in judgment, there is a yes or no in the act itself. Thus Meinong's argument is only valid if it is impossible to have a presentation of an object which contains a *not* as constituent—for the opposition of true and false is irrelevant in this matter, and only the opposition of p and not-p is in question. But we have already seen reason to doubt the conclusiveness of his reasoning on this point. The greater likeness of assumptions to judgments, we shall conclude, is derived from the identity of their objects and the close similarity of their contents; but in regard to the act, assumptions are to be classed with presentations, being merely the presentations of objects of a certain kind.

Meinong distinguishes "objects of thought" from "objects of presentation," the former being such as cannot be presented (p. 163), which are the same as those that involve Objectives. He points out that the division between objects and Objectives is not as sharp as might be supposed. "Black" is an object of presentation, but "the blackness of the board" is an object of thought, and so is "the black," (*i.e.* "that which is black"). In fact, relations, attributes, and all complexes require Objectives, which occur everywhere except in the simple, or, speaking not quite precisely, in cases of complete intuitiveness with mere presentation (pp. 178-180). Again, it is always Objectives, *i.e.* that something should exist or not exist, that we desire, and to which we attach value (pp. 182-183).[1] Some general properties belong to all Objectives. They are all objects of higher order; they never

[1] I do not intend to enter upon the non-epistemological parts of Meinong's work, but in this connexion one observation seems important. While agreeing entirely that desire is always directed to Objectives, I cannot think that these are always existential. Every mathematician, unless his patience is more than human, must often have wished, in regard to many general theorems, that there were fewer exceptional cases; yet here what is desired is not an existential proposition. And it would seem that value also may attach to non-existential propositions where these, as sometimes occurs, are felt to have beauty. Clifford felt, for example, that elliptic Geometry has more value than Euclidean; and it is difficult to suppose that the greater value attaches *only* to the knowledge, and in no respect to what is known. Another point, which, however, raises grave questions both of ethics and of logic, is, that value can only be held to attach to *true* propositions. The value attached to such as are false is only the value which they would have if they were true. This results very simply from the fact that otherwise a bad world would be as good as a good one, for the false existential propositions that were good would subsist just as much in the one as the true ones would in the other. This seems to show that judgment, not assumption, is relevant to questions of value; for the assumption "A exists" only has a valuable Objective in case A really does exist and its existence is good.

have existence, but they have subsistence when true though not when false; and they are timeless (pp. 187-189). When Objectives occur as objects, it is usually the assumptions, not the judgments, of them that occur (p. 203). It is owing to their having been overlooked that no one has known hitherto what class of things were to be called true or false, or how to distinguish logic and epistemology from psychology; for without Objectives, only knowing (*Erkennen*), which is psychical, could be the object of epistemology, whereas this is really concerned *primarily*, not with knowing, but with knowledge (*Erkenntniss*). Meinong confesses that it is only since he has recognised Objectives that he has known *why* epistemology is not psychology; but he holds that both logic and epistemology must concern themselves with knowing as well as with knowledge, and hence must be built upon a psychological basis, thus leaving psychology still the most central and fundamental part of philosophy (pp. 192-197).

These last remarks on the relations of logic, epistemology and psychology appear to me to contain remnants of the former theories through which Meinong has emerged, so far as he has emerged, from "psychologism"; and doubtless they are much influenced by his belief in an "immanent" object. For it is plain that logic must concern itself as much with false propositions as with true ones; but false propositions, according to Meinong, are the non-subsisting, merely pseudo-existing Objectives of erroneous judgments, and except through erroneous judgments they have no connexion either with existence or with subsistence. Hence, in order to survey the whole field of logic, it will be necessary to take account of judgment; and so psychology appears as fundamental. But if we deny the distinction between the immanent object and the (so to speak) external object, the positions become reversed. We shall now hold that a presentation or judgment is only capable of being directed to an object because such an object subsists, and that thus the subsistence of the object is prior to the presentation or judgment. We shall hold that, since psychological judgments, like all others, affirm propositions (*i.e.* Objectives), whatever can be said concerning propositions generally applies equally to those of psychology. We cannot say that logic is specially concerned with Objectives and psychology with the judgments that have those Objectives, for all knowledge is concerned with Objectives, psychological knowledge like the rest. But logic will certainly concern itself with the general nature of Objectives, with truth and falsehood, and whatever else may be discoverable of a like degree of generality. Psychology will

concern itself (*inter alia*) with judgment; and the theory of knowledge will concern itself with the difference between correct and erroneous judgments, *i.e.* between such as affirm true and false propositions respectively. Since psychology consists of propositions, and wishes, at least, to consist of true ones, logic must be assumed in psychology; and not only the above very general kind of logic, but such matters also as the canons of inference; for these can only be inferred by assuming them, and are therefore necessarily presupposed in any argument from psychological data. For these reasons, it seems to result that logic, though not epistemology, is prior to psychology. And Meinong's own principle, that the *inferiora* are prior to the *superius*, makes the Objective necessarily prior to the relation involved in judgment.

III.—THE INFINITE AND THE PERFECT.[1]

By Prof. J. S. Mackenzie.

A contrast has often been drawn between the customary attitude of the ancient Greek mind towards the Infinite and that of the Moderns. For the Greeks it is said, the Infinite tended to have a bad meaning; it implied something unformed, indefinite, negative: whereas for the Moderns in general it means what is most complete, most perfect, most real and positive. That this antithesis is in the main correct cannot certainly be gainsaid; and it may well lead us to inquire whether there is not some fundamental misconception involved in the idea of the Infinite as used either by the ancient Greeks or by modern thinkers, if not even in the usage of both. Such an inquiry has no doubt already been made, especially by Hegel, with results that are not a little fruitful; but I do not know that the significance of the Hegelian view on this point has ever been sufficiently emphasised in English[2]: and at any rate it has seemed to me that it might be worth while to make a fresh attempt to set it forth and bring out its value. I believe that all the points that I seek at present to urge are substantially Hegelian; but I have no desire to implicate either Hegel or any of his followers in the conclusions that I draw or the special applications that I make.

First, then, I think it may be well to illustrate very briefly the divergent views of the Infinite to which reference is here made, as being specially characteristic of the thought of the ancient Greeks, on the one hand, and of modern speculation on the other. In doing so my object is, of course, not that of elaborate historical research, but only that of indicating what appear to be the essential points.

[1] A paper read before the Philosophical Society, University College, Cardiff, October, 1903.

[2] Except in Dr. Hutchison Stirling's *Secret of Hegel*, which seems to be regarded as a sealed book by most English readers.

The earliest form in which such a conception appears would seem to be the ἄπειρον of Anaximander—translated by Prof. Burnet as "the Boundless"; and this is interesting, not only as the earliest conception of the kind, but also as being one in which the contrast between the Greek and the more modern notion may be regarded as still latent. The exact meaning of the "Boundless" of Anaximander is no doubt a matter on which there has been, and may well be, a considerable amount of controversy; but this much seems clear, that it had for him both a positive and a negative force. It was positive in so far as it was thought of as the primitive material, the ἀρχή out of which all things come, and into which they all return. It was negative in so far as it was the unformed material, in contrast with those particular determinations that become 'separated out' from it, and so was in itself little more than a bare potentiality of being. The subsequent development of Greek thought, however, went almost entirely in the direction of emphasising the more negative side of this conception.

The Pythagoreans probably represent the next important step. Here again the precise interpretation is a matter of some doubt; but it may be safely said that the general Pythagorean view was dualistic, and that their two elements were thought of as an unlimited material and a limit imposed upon it. Both seem to have been conceived as positive; but it is clear that for them all actual existence was found in the combination of the two, and consequently that the Infinite in itself was not thought of by them as effectively real. It was only an aspect of reality.

Now it is hardly too much to say that all serious metaphysical speculation among the Greeks was determined by the fundamental conception that thus emerges in Anaximander, and is developed by the Pythagoreans. The "Sphere" of Parmenides, though not directly related in a positive way with this conception, and perhaps even developed in opposition to it,[1] seems yet to be in reality a further working out of the same essential thought. The "Sphere" of Parmenides is regarded as that which is thoroughly real and perfect; and it seems clearly to be thought of by him as a determinate and limited whole. "It is not permitted," he says, "to what is to be infinite; for it is in need of nothing; while, if it were infinite, it would stand in need of everything."

The same view is in the main characteristic of the Eleatic School as a whole, Melissus having been apparently treated

[1] This is Burnet's view; but it appears to be very problematical.

as something of a heretic.[1] With regard to Plato, again, it is obvious how largely his conception of the Ideal Types is based on the Eleatic doctrine of reality; and also how, when he seeks to apply his theory to the things of Nature, he at once makes use of the Pythagorean idea of an imposition of determinations. And the same idea is evidently at the root of Aristotle's doctrine of Form and Matter. Matter is the indefinite material to which Form gives determination. Even the Atoms and Void of Democritus may fairly be regarded as an offshoot from the same central conception.[2]

On the whole, it seems not unfair to say that all Greek metaphysics is dominated by the conception of Form; and that this Form is thought of as, in some way or other, giving determinateness to an indefinite, pre-existing material. Heraclitus is of course an exception to this; and it would be easy enough to point to other side-currents. But the main stream of thought is very decidedly in this direction.

The same fundamental idea meets us when we turn to the more ethical aspects of Greek speculation. The Pythagorean "Numbers" for instance, were evidently treated as determinations of moral relations as well as of those that are material. In Plato's writings, and especially in the "Philebus," the same idea of a determining Form is applied in the treatment of Ethics; and finally this conception is summed up, in its most systematic form, in the Aristotelian doctrine of the Mean. All this is too obvious to require any detailed expansion or enforcement.

Similarly, Greek Æsthetics is in the main dominated by the idea of the beauty of that which has a determinate form or embodies a definite type. "Greek Philosophy," as Dr. Bosanquet says, "is inclined to select mathematical form, ratio, or proportion as the pure and typical embodiment of beauty."

In short, over the whole of the most characteristically Greek speculation is inscribed the famous Platonic formula, *μηδεὶς ἀγεωμέτρητος εἰσίτω*; and geometry means for the Greeks the investigation of determinate forms.[3]

Curiously enough, the same inscription might be written over the whole of that line of speculation in which, more than in any other, the keynote of modern philosophical

[1] Burnet seeks to rehabilitate Melissus; but Aristotle is more likely to have known what his real value was.

[2] Burnet's treatment of the relation of the Atomists to the Eleatics seems to me very instructive.

[3] Burnet seems to be right in thinking that even the "Numbers" of the Pythagoreans were essentially geometrical.

thought was struck—that of the Cartesian school. But with the Cartesians the conception of Geometry has changed. Instead of dealing, as the Geometry of the Greeks in general did, with the properties of separate figures, it is rather the effort to connect different figures and different modes of mathematical relation with one another, and to bring them all into connexion with certain ultimate points of reference. This appears in the development of co-ordinate geometry and in the attempts to express geometrical determinations in algebraical form. From this point of view, the conception of the whole comes to be regarded as prior to that of the parts. The part is treated as being determined by its position in the whole. The whole is the most positive form of reality: the part is only a particular mode in which it is determined. This way of thinking permeates the whole Cartesian school, and is obviously connected in the most intimate manner with their fundamental view of the nature of geometrical science.[1]

The influence of this way of thinking appears at the very outset of the speculations of Descartes. The thought of the finite and imperfect, he maintains, presupposes the thought of the infinite and perfect; and, as he advances in the working out of his system, this comes in the end to mean for him that the idea of God, as that of the infinite and absolutely perfect being, is to be regarded as logically prior to the consciousness of any mode of finite existence. The final outcome of this conception appears of course most definitely in the system of Spinoza, where the geometrical method is most consistently developed, and where the idea of the Infinite is without hesitation placed at the beginning. For him the Infinite is emphatically the positive; "determination is negation"; finite existence is only an aspect of the infinite whole.

Now there are few direct followers of Spinoza in the history of modern philosophy, just as perhaps there were few quite direct followers of Parmenides among the Greeks. But certainly all Greek philosophy after Parmenides was coloured by his central thought; and to understand modern constructive metaphysics it is necessary, as Hegel said, to bathe in the sea of Spinoza. There is a curious resemblance between the two writers. Both say, in effect, there is nothing real but the whole; and both say, in effect, that this whole

[1] This also is not a point that requires any elaboration. Descartes quite definitely bases his method on the mathematical analogy; and this is made still more explicit by Spinoza.

is to be conceived in at least a quasi-geometrical fashion.[1] But the great difference lies here. Parmenides says, the whole is a finite whole: Spinoza says, the whole is the absolutely infinite and perfect being. And this essential difference may be detected at almost every point in those currents of speculation which they respectively colour. Every ancient speaks with the accents of finitude: every modern who has breathed in a speculative atmosphere at all[2] has caught the tones of infinity.

The ethical significance of this doctrine of the Infinite can easily be traced in the writings of the various members of the Cartesian school. It has a double aspect, a positive and a negative. On the positive side, it shows itself in a lofty sense of the immeasurable value of a consciousness which is capable of grasping the Infinite. We see this in Descartes' idea of self-reverence, and still more clearly in Spinoza's "Intellectual Love of God". It is in this that Spinoza finally reaches the great object of his search—an attainable good which possesses a permanent and absolute value.[3] The more negative side appears in the consciousness of the worthlessness of any good which has not this infinite completeness. We see this in Spinoza's own quest after perfection. The freedom which he seeks is contrasted with a state of bondage, in which most men are involved. But we see this more negative aspect of the Cartesian Ethics perhaps more definitely in the system of Geulincx, with whom humility is the chief of the virtues. This view may be contrasted with the characteristically Greek attitude represented by Aristotle's

[1] In the case of Spinoza it is of course only quasi-geometrical. Even his infinite extension can hardly be regarded as the space with which geometry deals—any more than his 'eternity' is to be conceived after the manner of the chronologist. How far the "Sphere" of Parmenides was actually intended to be spatial I do not undertake to determine. Prof. Burnet seems to take him a little too literally.

[2] Of course this has no application at all to Bacon, Hobbes, Locke, and the British school of thought in general. The statement about the Greeks would also require some qualification with respect to Plato and the Stoics, and has, of course, no application at all to the Neoplatonists. But I leave the sentence as it stands, as being broadly true.

[3] Compare the beginning of the treatise on the *Improvement of the Understanding* with the end of the *Ethics*. "I finally resolved to inquire whether there might be some real good having power to communicate itself, which would affect the mind singly, to the exclusion of all else: whether, in fact, there might be anything of which the discovery and attainment would enable me to enjoy continuous, supreme and unending happiness." "From what has been said we clearly understand, wherein our salvation, or blessedness, or freedom, consists: namely in the constant and eternal love towards God, or in God's love towards men."

conception of the high-minded man, whose self-esteem is based on the realisation of certain forms of civic excellence, and who is entirely free from any consciousness of an infinite ideal.[1] The "wise man" of the Stoics is no doubt a nearer approximation to the Cartesian view; but even he attains his perfection rather by the suppression of his wants than by their complete satisfaction through an object of infinite worth. The "contemplative man" of Aristotle may be said to have reached a position very similar to that implied in Spinoza's "Love of God"; but he differs in this, that his contemplation is always supposed to be exercised on a definite and limited universe. Moreover, he is dependent for his high excellence (which is never thought of as infinitely high) on the organisation of the State and the presence of its practical virtues.

The two sides of the modern idea of the Infinite are seen again very clearly in the ethical writings of Kant, especially in his view of the moral life as involving an endless progress. On the one hand, it aims at a certain absolute completeness —perfect harmony with the moral law. On the other hand, being only the life of a finite creature after all, it cannot attain to any such completeness, and can only be thought of as continuously approximating to it, like an asymptote in Cartesian Geometry. This last illustration helps us to realise how thoroughly the whole conception is dependent upon a certain geometrical point of view. It was only Spinoza who definitely set himself to deal with human life as if he were dealing with circles and triangles; but most modern writers on Ethics have, more or less unconsciously, done the same.

For literary expressions of the view of life implied in these philosophical conceptions we have not far to seek. Take as an instance the well-known lines by Emily Brontë:—

> O God within my breast,
> Almighty, ever-present Deity,
> Life that in me has rest,
> As I—undying Life—have power in thee.

Or take Carlyle's Shoeblack—"Man's Unhappiness, as I construe, comes of his Greatness; it is because there is an Infinite in him, which with all his cunning he cannot quite bury under the Finite.—The Shoeblack also has a soul quite

[1] Compare also what Aristotle says about Shame—"A good man has no business with shame"—and contrast this with Wordsworth's "high instincts before which our mortal nature doth tremble like a guilty thing surprised".

other than his stomach; and would require, if you consider it, for his permanent satisfaction and saturation, simply this allotment, no more, and no less; *God's infinite Universe altogether to himself*, therein to enjoy infinitely, and fill every wish as fast as it rose." Or take even the more modest utterance of Tennyson:—

> Speak to Him thou, for He hears, and Spirit with Spirit may meet—
> Closer is He than breathing, and nearer than hands and feet.

All these imply a consciousness of the presence of the Infinite in man in a sense that would probably to any Greek have seemed mere ὕβρις.[1] And, indeed, all through our modern literature and art—*e.g.* in the poetry of Whitman, the music of Wagner, the painting of Turner—there is a constant presence of the idea of the Infinite as something positive and valuable, in a way that, so far as one can see, would have been almost unintelligible to the Greek mind. I mean that in the highest forms of modern expressive art we seem to be constantly made aware of a certain suggestion of something not contained in the finite object before us—a suggestion that seems in the end to be intended to yield us that feeling which is no doubt most definitely set forth by Wordsworth, as that of

> A presence that disturbs me with the joy
> Of elevated thoughts; a sense sublime
> Of something far more deeply interfused,
> Whose dwelling is the light of setting suns,
> And the round ocean and the living air,
> And the blue sky, and in the mind of man:
> A motion and a spirit that impels
> All thinking things, all objects of all thought,
> And rolls through all things.

This note of infinity is seldom long absent in the best modern art; and it seems, on the whole, quite foreign to the spirit of the ancient Greeks.

Now what are we to make of this strange contrast? Are we to accept the Greek or the modern view as correct? Or are both to be rejected as erroneous? Of course I have nothing at present to do with the historical origin of the antithesis. It would be easy to connect it with Oriental Pantheism and with the doctrine of human immortality diffused by the Christian faith. Both these tended to weaken the consciousness of limitation; and other causes—such as the discovery of new worlds by astronomical science—may

[1] I have already indicated that I am aware of exceptions to this. But they do not appear to me to affect the main point.

have co-operated with them. Here it is only with the validity of the conceptions that I have to deal, not with the way in which they grew up.

Now one point, at any rate, may at once be noted in which the two contrasted conceptions touch. They are both, as we have seen, in their essence, spatial. And it may be added that, from this purely geometrical point of view, neither way of thinking appears to have any real justification. Geometrical figures are not properly to be regarded either as determinations given to an indefinite material or as limitations set upon an infinite whole. It seems preferable to treat them as ideal constructions made within an indefinitely extended but definitely qualified and homogeneous form. At any rate, if we desire to reach a clear understanding of the true significance of these contrasted ideas of the Infinite, it will probably be best to try to see what they mean in other than purely spatial applications. We may be helped to such an understanding by considering one of the most definite attempts that have been made to justify the peculiar use of the idea of the Infinite in modern speculation—I mean the attempt made by Descartes himself.

Unfortunately the statements of Descartes on this point are hardly characterised by his usual lucidity. He seems rather to slur the matter over as if he were dimly sensible of the insecurity of his position; so that, in the end, his conception is rather assumed than proved. Yet it is easy to see that it is the very keystone of his system. His proof of the reality of the material world turns on the existence and perfection of God; and every attempt that he makes to prove the existence of God depends on the presupposition that we have in our minds a definite and positive idea of the divine being, *i.e.*, of a being absolutely infinite and perfect. Now the only ground for maintaining this is the one that is thus stated by Descartes in his third "Meditation": "I must not imagine that I do not apprehend the infinite by a true idea, but only by the negation of the finite, in the same way that I comprehend repose and darkness by the negation of motion and light: since, on the contrary, I clearly perceive that there is more reality in the infinite substance than in the finite, and therefore that in some way I possess the perception of the infinite before that of the finite, that is the perception of God before that of myself; for how could I know that I doubt, desire, or that something is wanting to me, and that I am not wholly perfect, if I possessed no idea of a being more perfect than myself, by comparison of which I knew the deficiencies of my nature?"

This argument is a little confused by its unfortunate introduction of the exploded Mediæval conception of "degrees of reality";[1] but its essential point is clear enough. The contention is simply that we are aware of ourselves as being finite and imperfect, and that the consciousness of this presupposes the consciousness of that which is infinite and perfect. Now if we ask how far this is valid, it very soon appears that a distinction must be drawn in this respect between the idea of the infinite and the idea of the perfect.

If we start with the conception of the infinite, and consider what it means with respect to purely mathematical relations, it seems clear that it is not a positive idea at all. It merely implies the absence of any definite possibility of fixing a limit. If we take the case of any geometrical figure—say, a circle or triangle — we readily see that it has definite limitations. It is one figure, and not another: it has a determinate shape, size, and position. This involves the idea of a space surrounding it; and it may fairly be argued that we cannot (in the abstract) assign any definite limits to the space that is thus conceived. But this is evidently a negative statement: it does not imply that we have any positive idea of an infinite space. Indeed, it seems certain that we cannot have any such idea. In like manner, if we think of numerical relations—say, between the numbers one, two, three—it is clear that any magnitude that is taken as a unit is thought of as limited in comparison with other units that may be regarded as added to it. It is clear also that there is no assignable limit to the additions that might thus conceivably be made. The series one, two, three, when simply regarded in the abstract, is capable of indefinite extension. But this also is essentially a negative statement. We have certainly no positive idea of an infinite number. And similar considerations apply to all other cases of infinity in the sense of an indefinitely extensible series. This is, of course, what Hegel means by the "bad infinite";[2] but it is no doubt the

[1] I refer to this idea as exploded, in spite of the re-introduction of the phrase in some recent philosophical systems. Mr. Bradley's "degrees of reality" seem to have very little in common with what was formerly understood by the term, and, indeed, do not appear to be rightly described by it. What seems to be meant is rather more or less adequacy of point of view.

[2] Hegel's phrase '*das schlecht Unendliche*' is commonly translated in this way. Dr. Hutchison Stirling, however, is probably right (*Secret of Hegel*, p. 553) in holding that the more correct rendering is 'downright infinite'—or infinite pure and simple. But, as Dr. Stirling adds, "we have here the usual Hegelian irony; what here is *downright* to figurate conception or ordinary reflexion is *spurious* to Hegel".

most primary and obvious meaning of the term. In this sense, then, it seems clear that the contention of Descartes cannot be justified.

The case is, however, very different when we take the idea of the Perfect, instead of that of the Infinite as thus conceived. There can be no doubt that to say that anything is imperfect implies some consciousness of a standard of perfection. When I say that a colour is not pure red, I imply that I have a more or less definite knowledge of the meaning of pure red. When I say that a rose is not perfectly formed, I imply that I know what the perfect form of a rose should be. Even here of course the argument must be used with caution. I may have a vague sense of defect which implies only a vague consciousness of a standard: merely to be aware that something is wanting does not involve any knowledge of the kind of object that would satisfy the want. But it may certainly be maintained that, in proportion to the definiteness of our consciousness of defect, our consciousness of a standard of perfection must in like manner be definite. This, however, has in itself nothing whatever to do with the consciousness of the infinite. Merely to know that red is one particular colour, separated off from others; or merely to know that the rose is one kind of flower, and not any other, —such mere knowledge of limitation does not imply any definite knowledge of other colours or flowers, still less any idea of a colour or flower that is unlimited and includes all others.

Now the conclusion to which we are thus led is that the Cartesian idea of perfection is in reality a teleological, and not a mathematical conception. It is only when we have some end in view that there is any scope for the recognition of defect. The end, of course, may be a purely intellectual one. It may be the attainment of complete knowledge about some object, or the removal of doubt with regard to some truth. When we have such an aim in view, we are aware of our ignorance or doubt as a falling off from perfection. Merely to be ignorant, or merely to be aware of ignorance, is not to have any real grasp of what is meant by knowledge; but to be aware of ignorance as a defect is to be conscious of knowledge as an ideal. The perfection, then, which is referred to by Descartes must be thought of as an end, aim, or ideal; and this is a point which the Cartesian school in general appears to have very imperfectly realised. With Spinoza, in particular, the effort is constantly to make the idea of the infinite purely geometrical in form,[1] and to elim-

[1] This is true, I think, in spite of the fact that Spinoza did, in a manner, draw the distinction between the true and the false infinity. He reaches

inate all its teleological implications. Of course he does not really succeed in this attempt: the idea of an end shines through at every point in spite of him. But it was Leibniz who first saw, with any distinctness, that the Cartesian point of view could be made intelligible only through the introduction of a teleological conception; and even with him the idea of an end is hardly seen to be of the essence of the position, but is rather imported into it from without—the fundamental ideas being still mathematical.

The significance of this distinction between a geometrical and a teleological idea of perfection may perhaps be made somewhat clearer by noticing its bearing upon the proofs that have been given of the being of God. If the view that has now been put forward is correct, it seems clear that the famous ontological argument is vicious. The essential point of this argument—at least as used by Descartes—is that a being that includes all reality cannot be conceived as non-existent; and the defect of the argument lies in the fact that it is not really possible to conceive of any such being at all.[1] To suppose that it is possible is to suppose that a mathematical idea of infinity can be completely formed. That a being, on the other hand, simply conceived as the ideal standard of perfection, might be non-existent, is clear —*i.e.*, it is clear that the existence of such a being requires some other proof than the mere fact that it is conceived. What is wanted further is to show that the very fact that such an ideal is formed proves that it possesses objective validity. How this might be shown, I hope to consider later. I am not now urging that no valid ontological argument can be devised, but only that the form commonly given would require to be very considerably modified.

The confusion between the conception of the Infinite and that of the Perfect, to which I have been calling attention, is certainly not unnatural or surprising. It arises, as we have seen, from the attempt to view reality in a purely mathematical way—an attempt that has had great fascination for the scientific mind since the time of the Pythagoreans. From a mathematical point of view, differences of quality can only be expressed by the conception of infinity; and consequently any idea of a standard of perfection must take this form. I might illustrate this by

the infinite in the wrong way, though he afterwards tries to correct the error. If he had really grasped the more positive conception of the infinite, his geometrical method would have disappeared.

[1] Leibniz indicated this defect, but did not press his point.

referring to one of Carlyle's sayings about religion—"All religion was here to remind us, better or worse, of what we already know better or worse, of the quite *infinite* difference there is between a Good man and a Bad; to bid us to love infinitely the one, abhor and avoid infinitely the other,—strive infinitely to *be* the one, and not to be the other". What exactly does "infinite" mean in such a statement as this? If it means anything, it is surely something that is rather qualitative than quantitative. There is an infinite difference between the good man and the bad in the sense that there is a qualitative difference between their attitudes towards life—a point that is fully recognised even in Aristotle's apparently quantitative doctrine of the Mean. In the same sense there is an infinite difference between a good picture and a bad—*i.e.*, there is a difference which cannot be adequately expressed by any finite enumeration of specific points of difference. Similarly, to "love infinitely," to "strive infinitely," mean, I suppose, an uncalculating devotion—a devotion which does not aim simply at the realisation of certain measurable results, but rather at the achievement of a certain qualitative excellence. In this sense an infinite devotion may be found also in the soldier, in the artist, even in the man who aims at being a scholar or a gentleman. But if we call such devotion infinite, we should remember at least that it is very different from the infinite devotion of the millionaire, who seeks simply to amass money without assignable limit. In the latter case the infinity is purely quantitative, and has no assignable end; and the same may be said to be true of the aim of the pure pleasure-seeker. It was precisely for this reason that the mere money-making life and the life of mere pleasure-seeking were regarded by the wisest of the Greeks as violent and unnatural.

I believe we may trace a similar confusion in the common saying that genius means "an infinite capacity for taking pains". The "infinite capacity" here is on a par with the "infinite love" and "infinite striving" of the above quotation. It does not mean, as is sometimes thought, an endless plodding, but rather an absorbing devotion to some specific object—music, poetry, science, or whatever it may be—and the fixed determination to achieve a definite result, whatever it may cost. This is a qualitative excellence; and to represent it as an infinite quantity means little more than that the man who is without it would require to be completely transformed in order to have it. In the same sense we may say that there is an infinite difference between a sound and a colour, between a rose and a violet, between

a dog and a horse, between a circle and a square. The meaning in such cases is simply that there is no real bridge from the one thing to the other; and consequently that the steps that would be necessary to lead us over could only be represented, from a quantitative point of view, as an infinite series.[1]

It is an easy transition from such confusions to those that are connected with the idea of God. The common way of setting forth the perfection of the Divine Being is, or used to be, that of enumerating a variety of attributes supposed to be infinite. Thus it was said that God is omnipotent, omniscient, omnipresent, eternal; and these attributes were apt to be conceived—though no doubt the more speculative intellects have tried to guard against this—simply as an infinite extension of the corresponding qualities that we know in our finite world. A man, it was thought, occupies a definite portion of space: God fills it all. A man has a "span-long life": God lives on without any limitation. A man is ignorant of many things, and is in doubt about many things: God knows them all, and is quite sure of them. A man can lift so many pounds' weight: God could lift any number. Of course this is putting it very crudely; but does the ordinary conception amount to anything very different from this? Now no one who reflects on the matter at all can really suppose that the idea of a perfect being is to be reached in any such way as this. Genuine religious feeling sweeps it all aside at once, and says instead, 'God is love,' 'God is our Father in Heaven,' or something else that is expressive of a qualitative excellence. And it is not difficult to see that the purely quantitative conception is in reality meaningless. What meaning, for instance, can be given to omnipotence? Can there be an infinite force? It could only be expressed, I suppose, as an infinite possibility of motion; and what real meaning could be given to that? Nor, so far as I can see, could there be an infinite knowledge; for all knowledge is of something definite. Perhaps it may be thought, however, that there is some meaning in an infinite time and space; and that, in respect of these at least, we may think of God as infinite. This is a point that appears to require some further consideration.

It is no doubt in connexion with space and time that the

[1] *Cf.* Stirling's *Secret of Hegel*, p. 552—"The limitless externality which lies in the notion of Quantum or Quantity is qualitative; and therefore it is a cheap wonder that falls prostrate before the infinite quantities that can be conjured up in the quantitative progress; for with such *quality* such *quantity* is the turn of a hand".

idea of the mathematical infinite most naturally arises ; and a short study of its significance with regard to these may help, more than anything else, to make our position clear. It certainly seems at first as if space and time, and the world of objects and events which they condition, could only be thought of as going on into infinity ; and it does not appear to be possible to avoid this conclusion by the Kantian distinction between phenomena and things in themselves. However phenomenal they may be, they are at least phenomena that demand this kind of completeness. Kant's statement of the antinomies is, however, quite enough to convince us that there are as great difficulties in thinking of the world in space and time as infinite as there are in thinking of it as finite. And, though Kant's negative solution of these antinomies (by the distinction between phenomena and things in themselves) is unsatisfactory, we may find more help in his positive solution of the difficulty. As stated by Kant himself, indeed, this is little more than an amplification of the negative solution ; but it is capable of being restated with a slight modification which entirely changes its meaning. This I must now endeavour briefly to bring out.

The positive solution, when reinterpreted, really amounts to this. Space and time, apart from the world of objects and events which they condition, are meaningless abstractions, and cannot properly be said to be either finite or infinite. The world that is conditioned by them, however, is limited both in space and time ; and consequently space and time themselves, so far as they have any actual existence, are limited, though (in the abstract) they may be regarded as indefinitely extensible. I think this must be understood as implying that both space and time are closed circles. That is to say, if any one were to go out into space in an easterly direction until he reached the extreme limit of the material world on that side, he would find himself also at the extreme limit on the western side. In other words, there is no extreme limit, but rather a closed sphere, as Parmenides affirmed. Similarly, if any one were to go forward in time till he reached the closing event in the drama of existence, he would find himself also at the opening of the first act ; and the universe would repeat itself, as in Virgil's Eclogue, or as in so many other ancient speculations.[1]

[1] The idea of cycles of existence seems, in some form or other, to have been common to the doctrines of most of the early philosophers. As I have here introduced this theory in an exposition which purports to be largely Hegelian, it may be well to explain that I know of no ground

If we accept this solution, it is evident that we introduce a new meaning of infinity. A closed circle, however limited it may be in its content, is yet in a very real sense infinite. It has determinateness, but it has no end. Now, if the infinity of God in space and time be taken in the sense here indicated, no objection need be raised against it. Even the human consciousness is, in a manner, unlimited with respect to space and time. The mind of man is never fixed to the here and now, but is always ready to wander through eternity; and we can easily think of a completed consciousness, to which all time and space should appear as present. Such a consciousness would be infinite in a very real sense, but a sense utterly different from that in which a mathematical series is infinite. Its content would still be definite and limited, but it would also be perfect and complete.

Now this I take to be the essential point in the positive conception of infinity which Hegel seeks to substitute for what he describes as the "bad infinite". The true infinite is without end, not because it goes on indefinitely, but because, like a circle, it returns into itself. Such an infinite is evidently, in a sense, also finite;[1] and this is perhaps what Goethe meant to express in his famous epigram:—

> Willst du ins Unendliche schreiten?
> Geh nur im Endlichen nach allen Seiten.

The true infinite, in short, is a completely determined finite;

for attributing this conception to Hegel himself. It seems to me, however, to be quite in the spirit of his philosophy. Obviously, it cannot be satisfactory, from the Hegelian point of view, to say merely that space and time are conceptions that have to be transcended. What is transcended, in the Hegelian system, is not annulled; and an antinomy is not solved by simply saying that we have got above it. It seems correct to say that space and time, as used in our ordinary experience, cannot be accepted as ultimately valid conceptions. Nevertheless, they are conceptions by which the world of our experience is determined, and we must try to make them intelligible as such. This seems to be involved in Hegel's position; and consequently the attempt which is here made to apply the revised conception of infinity does not appear to be inappropriate.

[1] *Cf.* Stirling's *Secret of Hegel*, p. 290—"The answer to the question, How the Infinite becomes Finite, is consequently this, that *there is* no such thing as an Infinite that is *first of all* Infinite and which is afterwards under a necessity to become finite, to go out into the Finite; but that it is *per se*—by and for its own self—already just as much finite as infinite. In that the question assumes that the Infinite is on one side *per se*, and that the Finite—which has gone out into separation from it, or which may have come from whencesoever it may—is, separated from it, truly *real*: here rather it were to be said, that this *separation* is *incomprehensible*. Neither such Finite nor such Infinite has truth."

and it may, therefore, be less misleading to call it the perfect, rather than the infinite, and to maintain that *all* infinites are "bad".

It is evident that, in this way, we come to side with the old Greek view of infinity, rather than with the more modern conception. We come to think, at any rate, that all good things are determinate, and that the sphere of Parmenides is in some respects nearer the truth than the absolutely infinite being of Spinoza. Nevertheless, we are far enough removed from the Greek idea of an infinite unformed material, on which a definite form is imposed. What we rather come into unison with is the Platonic conception of the Idea of the Good, as that which is most truly infinite and complete. And this is hardly a result that need surprise or pain us. Plato and Aristotle clearly represent the highest points in philosophic speculation; and the more nearly we approximate to them the more likely are we to be in touch with what is soundest in speculative thought.

But an objection naturally occurs to the modern mind. Surely, it will be urged, the positive idea of perfection must itself involve something of the nature of a mathematical infinite, since it implies at least an unattainable ideal, to which there can only be an asymptotic approach. To this I answer that it only appears so when we think of the perfect in a purely abstract fashion. The Cartesian school of thought has accustomed the modern mind to think of that which is perfect as an impossible jumble of all manner of conceivable and inconceivable realities. If we mean by the perfect this incredible compound—if we think that what is perfect must be a perfect sound and a perfect colour, a perfect rose and a perfect horse, a perfect man and a perfect woman, a perfect circle and a perfect square—then no doubt the conception involves a mathematical infinity. But once we start on this line of thought, we may as well carry it farther, and demand that what is perfect should be a perfect fool, and a perfect devil. Such an idea of perfection can lead us to nothing but perfect nonsense. The perfect that we are really in search of is something very different from this. It is something definite, concrete, and intelligible—not something that shall include the whole of existence, but rather something through which the whole of existence shall be seen to have meaning.

Perhaps an illustration taken directly from human life may help to make the point clearer. Each of us is, I suppose, painfully aware at times that he is something in particular, and not something else. This is felt even by those who are freest from any special limitations Indeed,

he who was probably of all men the freest from them has yet expressed the feeling perhaps more adequately than any one else:—

> When in disgrace with fortune and men's eyes,
> I all alone beweep my outcast state,
> And trouble deaf heaven with my bootless cries,
> And look upon myself, and curse my fate,
> Wishing me like to one more rich in hope,
> Featured like him, like him with friends possessed,
> Desiring this man's art, and that man's scope,
> With what I most enjoy contented least.

Here Shakespeare speaks as if he were no better than Carlyle's Shoeblack, fooled by a "bad" infinity. Woe is me! I am this; I am not also that! But Shakespeare points (what Carlyle does not) to the true way of escape from this sense of limitation—*viz.*, by self-identification with the other:—[1]

> Yet in these thoughts myself almost despising,
> Haply I think of thee,—and then my state
> (Like to the lark at break of day arising
> From sullen earth) sings hymns at heaven's gate;
> For thy sweet love remembered, such wealth brings,
> That then I scorn to change my state with Kings.

And we see still more adequately in his plays how he escaped from his individual limitations by the appropriation to himself of the universe of human life. Can we think of perfection in any other way? If we try even to picture to ourselves the perfection of a Divine Being, in what other way can we do it than by thinking of Him as knowing and loving a universe, in which He finds Himself expressed? The perfect being is surely not to be thought, as the Cartesians imagined, in the form of the universe as a whole, but rather in the form of the spirit which grasps the universe as one, and which is more than the universe through the return from it as another.[2]

[1] *Cf.* Stirling's *Secret of Hegel*, p. 553—"The One is always One, the *immediate*; so the non-immediate is its non-being, the negation of itself: thus it is *caught* (*befangen*) in the spurious Infinite, the *Sollen* of all kinds, and is '*das unglückliche Bewusstseyn*,' the unhappy consciousness that cannot find *itself*, but is for ever lost in its *other*. All this disappears before the simple consideration that the *other* is just the *condition*, the *presupposition* of *itself*; that the other is *for* it; that *it* is through the *other*; that it is One just because it is One, One, One; that *it* is the *other*, and the *other* is *it*."

[2] *Cf.* Stirling's *Secret of Hegel*, p. 453—"Ideality may be named the quality of infinitude; for is not infinitude just that in which the whole wealth of the finite is ideally held? . . . Sublating the finite, and sublating, in this same act, its own self as an only abstract infinite, it is a return, as it were with both, into its own self."

This may help us to realise the ethical significance of the idea of a finite infinite. The modern mind, when at all of a speculative cast, is too prone to lose itself in a vague and empty mysticism. We admire nothing heartily unless it is vast, mysterious, unfathomable, illimitable, unspeakable. We heap Pelion upon Ossa, and think to scale heaven by a confusion of tongues. It is in contrast with this that the Greek view of life appeals to us with such a tranquil beauty —infinite through its limitations, eternal from its absorption in the moment. For them it is not the unfathomable that is admired, but that which is completely known and understood: it is not the illimitable that is great, but that whose definite restrictions give perfection of form. We too, if we are ever to attain to any completeness of excellence, must learn, I think, something of this free constraint. It is not the vague aspirations of the mind that give it worth and dignity:—

> Not that, admiring stars,
> It yearns, "Nor Jove, nor Mars;
> Mine be some figured flame which blends, transcends them all".

That way madness lies: that only leads us to the "bad infinite". The true infinite is found rather in the performance of some definite action that is wisely planned, and whose drudgery is made divine through its being done in the spirit of the whole; in thorough insight into some intelligible object, which mirrors in itself both God and man; or in the enjoyment of some limited thing that has nobility and power through its place in the system of the universe. The treasures of the spirit are not hidden away in caverns of the earth or in the remote heavens: we find them rather most completely by the appropriation of our "station and its duties"—by acting, feeling, and thinking adequately with regard to what is immediately around us, "rich in the simple beauty of a day."

"That strain I heard was of a higher mood."—The attempt to set forth the ethical significance of the conception has carried me away a little from the main point, and may perhaps seem somewhat irrelevant. But I make no apology for the digression. It has been a good deal the fashion of late to maintain that all reality worthy of the name is "beyond Good and Evil," and that the trivial point of view of Ethics has no right to obtrude itself in Metaphysics. But if the conception of the perfect here put forward is correct, such an attitude is entirely mistaken. The modern Absolute is, in truth,—at least in many of its phases—a lineal descendant of the being absolutely in-

finite of Spinoza, and has inherited some of the most fatal diseases of its stock. Indeed, there is even a blot in its scutcheon: it is, in some respects, little better than a bastard issue of Kant's thing in itself. This soulless Absolute,[1] which can never really be known or understood, springs, I believe, from the attempt to think of the whole of reality as a single and indivisible being. Against this I would seek to maintain that the only kind of Absolute that is worth considering is not an unknown thing in itself or a being absolutely infinite, or any compound of these or cross between them, but rather a perfectly determinate idea of the Good, which gives meaning to our world, and which shows itself perhaps more adequately in the moral, æsthetic, and religious consciousness than in any other way. But I have probably said enough for the present on this aspect of the subject, and I now turn to some other points.

I have tried to show how the idea of the finite infinite can be applied in dealing with space and time, regarded as completed wholes. It may be thought that its application to the indefinite divisibility of portions of space and time should also be brought out. In short, having dealt with the infinitely great, we may now be called upon to deal with the infinitely little. But it is hardly necessary to spend many words on this. From a metaphysical point of view, it can only be regarded as one of the Cartesian futilities—the one for which Leibniz is specially responsible. It seems clear that the infinitely little is a purely mathematical conception, just as the infinitely great is, and that it has no real ontological significance. Any thing or event is divisible into parts or moments up to a certain point; but that any one should be divisible without limit seems obviously absurd. Of course it may be said that the ultimate constituents of material things—whatever they may be—are ideally resolvable into still smaller parts. But this is only to say that they are in space; and that space, as a pure form, contains an indefinite possibility of subdivision. This indefinite subdivision is only a naked possibility; and, as we know, "a naked possibility is nothing". The same consideration ap-

[1] I am perhaps a little hard on the Absolute here. I am aware that its many friends—and especially their leader, Mr. Bradley,—have made a very valiant effort to cure its diseases, but only, I am afraid, with a very partial success. On this point, however, I cannot here enlarge further. I may, however, quote the saying of Hegel (lesser *Logic*, Wallace's trans., p. 50)—"Common fancy puts the Absolute far away in a world beyond. The Absolute is rather directly before us, so present that so long as we think, we must, though without express consciousness of it, always carry it with us and always use it."

plies to the indefinite subdivision of time. There is, it would seem, a smallest possible experience of change; but within that experience of change there may no doubt be said to be the naked possibility of any amount of further resolution. This only means that we know of no reason for stopping at that particular point except the bare fact that we are brought to a stand. Such a mere unrealised possibility of further division is a pure abstraction, and has no ontological significance. This is really all that need be said on that subject. There is no problem requiring solution.

There is, however, one other way of thinking of the infinite which seems to demand a few words of comment—that, namely, which has recently been brought forward with so much ingenuity and force by Prof. Royce. Of course it would not be possible here to go into any detailed examination of the extremely interesting applications that he makes of his conception. For the simple understanding of its meaning and speculative value it is enough to take some of the crudest illustrations, which bring out the essential point of it quite as well as any others. Let us take the instances of the continuous map and the pair of mirrors.

A complete map of a country, in which every detail is fully shown, would contain among other things, it is urged, a map of the map itself. That map of the map, being also a complete map of the country, would again contain a map of the map; and so on without end. There is a weakness in this illustration; since, at the time when the map is being planned, it would not itself be one of the things contained in the country.[1] There is also the further weakness, that it may be held to be of the very essence of a map, that unimportant details should be omitted. The illustration of the pair of mirrors is more satisfactory. When two mirrors face one another, the mirror A contains the image of the mirror B: in that image there is contained the image of the mirror A, with the image of the mirror B within it; and so on to infinity. The point of these illustrations is that they appear to supply us with cases in which an infinite series is demanded by the conditions of the problem and not merely brought out by subsequent reflexion. If we are to have such a map as is described, it can only be constructed by going through an infinite series; and if two mirrors are to go on reflecting one another there is no end to the images that must be formed.

[1] *Cf.* A. E. Taylor, *Elements of Metaphysics*, p. 150, where the whole subject is discussed in an extremely instructive way.

I am afraid, however, that these cases are not in reality any better than that of the indefinite subdivision of a finite object. We are still only concerned with the "bad infinite". There is no such infinite map, nor are there any such infinite reflexions. As regards the map, indeed, it may very well be classed with the old Greek puzzle about the man who says he is lying, or the head that can never become bald. I have already pointed out some of the weaknesses of the illustration; but its fatal defect is that no such map can possibly be conceived. The illustration of the mirrors is much more plausible. Mirrors do actually go on reflecting one another to an indefinite extent. At least the extent of the reflexion is indefinite for one who has not made an exact study of the properties of light, and of the conditions in which the mirrors are placed. For one who knew these circumstances with complete accuracy, it would, I suppose, be quite possible to calculate the exact point at which the image would cease to be reproduced. At any rate, it may be taken as quite certain that there is such a point. The indefinite going on is only a "naked possibility," *i.e.*, it is an abstract possibility—a possibility for one who does not know, or who deliberately leaves out, some of the essential conditions of the problem. And this is just what gives rise to the "bad infinite" in all cases: we are lured on simply because we see no reason for stopping. But it is not a mark of excellence in anything that it should contain no ground for stopping. Whatever is incoherent may go on indefinitely. There is no particular reason why Shakespeare's "Sonnets" should ever come to an end. The play of "Othello," on the other hand, being a coherent work of art, has its inevitable close.

We have now perhaps sufficiently considered the incidental points that arise in connexion with this subject; and it remains only to complete our sketch by attempting to deal with the final problem which it suggests. The final problem is simply this—How far can we claim for the idea of perfection or infinity that has now been explained that it has any ultimate objective validity? This is of course simply another way of stating the old question with regard to the proofs of the being of God; for I suppose there can be no doubt that the ideal of perfection is what men ultimately mean by the thought of God. The question, then, is this—Can we show that the ideal of perfection has a definite meaning, and that it is a principle by which the world that we know is conditioned and explained?

That it has a definite meaning ought, I think, to be apparent from what has been already stated. The perfect

or infinite, it would seem, is to be interpreted as meaning that which is not limited by anything else; and this implies, not that it contains all possible reality within itself—which is absurd—but rather that in all that is other than itself it finds *its* other, and so is not really restricted by it. What is other than itself is recognised as its necessary counterpart. From this point of view, self-sufficiency, so far from being the mark of perfection, is the sign of finitude. The rose is imperfect, not because it is other than the lily; but because it does not appreciate the lily; but the poet, who sees the beauty of both, is free from this imperfection, not because he is the lily and the rose, but because he is able to appropriate their peculiar excellence. Now, this meaning of perfection or infinity not only seems to be quite definite and intelligible, but may clearly be said to be realised wherever there is knowledge and love. To know anything or to love anything is to be infinite with regard to that.[1]

We get in this way at least a partial answer to the problem that has been suggested. When it is asked whether the infinite is real, a simple answer is that it is realised in every act of knowledge and love. God is Love; and we might argue, after the manner of Descartes—I think, hence I am; I love, hence God is. More definitely, we might urge that the existence of God is proved by the existence of moral and intellectual genius. The comprehensive insight of a Shakespeare shows the existence of the infinite on a large scale; and it might be maintained that we see it even more completely in the depth of heart of a Christ or Buddha. From this point of view, therefore, it might be affirmed that there can be no doubt that God exists: the only question is—How much is there of Him? How far can He be regarded as the essential condition and secret of the universe?

This question, however, at once suggests to us that the answer that has now been given is unsatisfactory. It is not

[1] *Cf.* Hegel's lesser *Logic* (Wallace's trans., p. 62)—"It is, speaking rightly, the very essence of thought to be infinite. The nominal explanation of calling a thing finite is that it has an end, that it exists up to a certain point only, where it comes into contact with, and is limited by, its other. The finite therefore subsists in reference to its other, which is its negation and presents itself as its limit. Now thought is always in its own sphere; its relations are with itself, and it is its own object. In having a thought for object, I am at home with myself. The thinking power, the 'I,' is therefore infinite, because, when it thinks, it is in relation to an object which is itself. . . . And so infinity is not, as most frequently happens, to be conceived as an abstract away and away for ever and ever, but in the simple manner that has just been indicated."

enough that we should find actual instances of the infinite or perfect, so long as it is at least equally easy to point to instances of the finite. We mean by the idea of God not merely the idea of a being who is infinite, but that of a being who is completely infinite, and who is the key to the universe. In short, the argument that has been suggested has the same defect as the argument of Descartes for the being of self. "I think" only tells us of the existence of the self in a momentary act of apprehension: "I love" only tells us of the existence of something divine in a similar momentary act. How are we to remove this deficiency? Now I think we may best arrive at a solution of this problem by asking how we arrive at the solution of the corresponding problem with regard to self.

How do I really know that I exist? Not assuredly by murmuring to myself at intervals—"I think, hence I am". Rather, I know that I am, by knowing *what* I am—sometimes no doubt through the painful consciousness of deficiency, but sometimes also through the more joyful one of certain forms of achievement. I know that I am, in short, not from the mere abstract fact of thinking, but from the concrete building up of a particular content of experience.

Now, in like manner, it may be said that, for the proof of the being of God, the elementary abstract material before us is the simple fact "I love" or "I know"; but it is not by brooding upon this that we establish the doctrine. The establishment of the truth must rest rather, in this case also, on a certain concrete totality of experience. Every time I really know anything, or find (what is pretty nearly the same thing) that I am able to love anything, I am made aware that the world of my experience is not something alien and unintelligible, but something that I can actually appropriate as the counterpart of myself; and this inspires me with an ever increasing confidence that the world is in its essence knowable and lovable. We thus, in a manner, prove the being of God through our consciousness of ourselves; but in a manner very different from that supposed by Descartes. We reach the idea of God, not through the consciousness of our deficiency and weakness, but rather through the sense of our own perfection. It is because our eyes are like the sun, that we see the light[1]: it is because we are aware of our own freedom and infinity, that we believe the universe

[1] Wäre nicht das Auge sonnenhaft,
Wie könnte es das Licht erblicken?
Wohnte nicht in uns des Gottes eigne Kraft,
Wie könnte uns das Gottliche entzücken?

to be infinite and free.[1] And this idea, we may further maintain, is proved to be real—so far as it can be proved at all—by the mere fact that we believe it. This is a revised form of the ontological argument. The idea of God proves itself to be a reality by the fact that it survives in the struggle for existence—that it continues to present itself to us as the only possible key to our experience. That it can hold itself there, is the best evidence that it is valid: it must be valid, because it is vital.

It is here, as I think, that we find the element of truth in that idea which has created so much stir in recent years under the name of "The Will to Believe". With much that passes under that title I have the smallest possible sympathy. I do not find in myself that mysterious faculty of willing, which some are so ready to claim; nor do I discover any peculiar dignity in the simple act of choice. I consider, moreover, that all true belief must rest on an intellectual, rather than on a purely volitional basis. But I think it is true that our most ultimate beliefs, and especially the belief in the being of God, may be regarded as involving an act of faith. It is the faith, however, I should say, on which our intellectual, no less than our more distinctively ethical activities depend—the faith that the universe is a thing that can be appropriated, a thing that can be known and loved. This faith certainly seems to me to be the essence of all religion; but is it not also the essence of all science, of all poetry, and of all morality? It is the salt, I think, by which alone, both in our thought and action, we are saved.

[1] Freedom, from the point of view here explained, is almost synonymous with infinity.

IV.—SCEPTICISM OF THE INSTRUMENT.[1]

By H. G. Wells.

Your invitation to me to come and talk philosophy to you at the home and centre of philosophy not only flattered me exceedingly but attracted me very strongly for quite other reasons. I responded to Mr. Sturt, who conveyed that invitation to me, with an alacrity that may even have alarmed him. I announced to him by return of post that I would read you a paper on the "Metaphysics of an Amateur". In reply, and as it were to give me some taste of your quality, Mr. Sturt sent me a rather large, very interesting, and occasionally difficult book called *Personal Idealism*. This crossed a postcard from me saying that the paper I proposed to read you would be better called the "Philosophy of an Amateur". You must imagine after that a decent pause, broken only by a sound of turning leaves and by an occasional sigh. Then came the manifest consequences of this unforeseen lapse into study on my part. I wrote to Mr. Sturt transposing my title into a different key, and "Scepticism of the Instrument" was the final title I chose. But I can assure you that for the rest, this is exactly the paper of my original intention.

I recall those earlier titles to-night because they serve to define my attitude towards what I conceive to be your atmosphere, and to apologise to a certain extent for my impudent acceptance of your invitation. They are, I think, none the less expressive because they are essentially absurd. They are absurd because to talk of the Philosophy of an Amateur is to imply a sort of Professional Philosophy, Philosophy that has specialised and become technical, and that is just exactly what Philosophy cannot do. Philosophy must surely remain as wide as thought, as general as literature, as comprehensive as anything, and it is absurd to talk of a professional speciali-

[1] Paper read to the Oxford Philosophical Society, 8th Nov., 1903. The Editor of Mind has printed it practically as it was read.

sation that takes everything for its province. Every man who thinks must needs think upon a philosophical framework, explicit or implicit; we are all philosophers directly we broaden to a philosophical inquiry, and it was, I perceived, a quite preposterous modesty to come before you deliberately, self-labelled Amateur.

And yet, as I say, that word, for all its inaccuracy, conveys something I find no other word conveys so well. There exists an extensive philosophical literature, in which I am, in these present surroundings, conspicuously unread, and definite courses of philosophical study that I have not pursued. I am sorry for it. But life is short, crowded with other interests, and some have had a stronger appeal for me. To many minds—conceivably to some of yours—this philosophical literature is the sum of philosophical wisdom, and such courses as you follow here the only proper justification for philosophical pretension. To discuss philosophical questions, without such qualifications, must appear from that standpoint the vilest of presumptions. At first, before I realised you at all, I was disposed to assume *that* as your probable attitude in general, and to make concessions to it, to assume that you would all be disposed to hold—as the unthinking multitude certainly holds—that here on the one hand is the natural man, here in his everyday world, and there, on the other, is philosophy, the particular right philosophy, the only orthodox world view-point, a long way up and over there, far away from the things of this life, and that from here to there is a tedious and toilsome and singularly unprofitable scramble over rocky books and arguments. I assumed too as a consequence of this unjust anticipation of what you might be, that you would display something of the same hostility to any one who not only had not traversed, but did not intend to traverse, that arduous path, that a good Mussulman would feel towards any one who sported a green turban without the qualifying journey to Mecca.

But afterwards I decided that it was unfair to you to make such assumptions, that probably it would not offend you if after repudiating that journey I still dealt with you as one Philosopher of a sort among other Philosophers presumably of a rather different and better sort (yet equal under Heaven), and that even if it did not appeal to you quite as that, it really did not—in the last resort—matter so very much. For my own part, what I understand by Metaphysics and Philosophy is something nearer than breathing and closer than hands and feet, something in its last essential aspect incurably personal, implicit sometimes and as unsuspected as

Monsieur Jourdain's power of prose, and made explicit mainly by clear-headed self-examination, something common to all men just as far as, and no further than, their individualities have things in common.

Now if I am right in considering, as I do, that one's philosophical belief should be merely one's own more or less thoroughly explored mental basis more or less thoroughly mapped and *the statement of the systematised attitude of one's individuality to thought and things in general*, then sound philosophical discussion resolves itself into a comparison of philosophies with one another and with the general medium of communication. And it seems to me, after all these preliminary qualifications, that I may most propitiously attempt to interest you this evening by describing very briefly the rude home-spun metaphysical and philosophical system in which I do my thinking, and more particularly by setting out for your consideration one or two points in which I seem to myself to differ most pointedly from the current philosophy of the man in the street. My hope that this may appeal to you is strengthened by the fact that though my process and method seems to me to differ pretty definitely from yours, though I seem to follow a path of my own, yet it is probable that I do at last emerge somewhere near to and parallel with what you are calling here Pragmaticism and Humanism as I find these terms defined by Mr. Schiller. You must be prepared (let me warn you) for things that will strike you as crude, for a certain difference of accent and dialect that you may not like, and you must be prepared too to hear the clumsy statement of my ignorant rediscovery of things already beautifully thought out and said. And it is quite unavoidable that in setting out these intellectual foundations of mine, that I should lapse for a moment or so towards autobiography.

A convergence of circumstances led to my having my knowledge of concrete things quite extensively developed before I came to philosophical examination at all. I have heard some one say that a savage or an animal is mentally a purely objective being, and in that respect I was like a savage or an animal until I was well over twenty. I was extremely unaware of the subjective or introverted element in my being. I was a Positivist without knowing it. My early education was a feeble one, it was one in which my private observation, inquiry and experiment were far more important factors than any instruction, or rather perhaps the instruction I received was less even than what I learnt for myself, and it terminated at thirteen. I had come into pretty intimate contact with the harder realities of life, with

hunger in various forms, and many base and disagreeable necessities, before I was fifteen. About that age, following the indication of certain theological and speculative curiosities, I began to learn something of what I will call deliberately and justly, Elementary Science—stuff I got out of *Cassell's Popular Educator* and cheap text-books—and then, through accidents and ambitions that do not matter in the least to us now, I came to three years of illuminating and good scientific work. The central fact of those three years was Huxley's course in Comparative Anatomy at the school in Exhibition Road. About that as a nucleus I arranged a spacious digest of facts. At the end of that time I had acquired what I still think was an exceptionally clear and ordered view of the ostensibly real universe. Let me try to give you the chief things I had. I had man definitely placed in the great scheme of space and time. I knew him incurably for what he was, finite and not final, a being of compromises and adaptations. I had traced his lungs, for example, from a swimming bladder, step by step, with scalpel and probe, through a dozen types or more, I had seen the ancestral cæcum shrink to that disease nest, the appendix of to-day, I had watched the gill slit patched slowly to the purposes of the ear and the reptile jaw suspension utilised to eke out the needs of a sense organ taken from its native and natural water. I had worked out the development of those extraordinarily unsatisfactory and untrustworthy instruments, man's teeth, from the skin scutes of the shark to their present function as a basis for gold stoppings, and followed the slow unfolding of the complex and painful process of gestation through which man comes into the world. I had followed all these things and many kindred things by dissection and in embryology—I had checked the whole theory of development again in a year's course of palæontology, and I had taken the dimensions of the whole process, by the scale of the stars, in a course of astronomical physics. And all that amount of objective elucidation came before I had reached the beginnings of any philosophical or metaphysical inquiry, any inquiry as to why I believed, how I believed, what I believed, or what the fundamental stuff of things was.

Now following hard upon this interlude with knowledge, came a time when I had to give myself to teaching, and it became advisable to acquire one of those Teaching Diplomas that are so widely and so foolishly despised, and that enterprise set me to a superficial, but suggestive study of educational method, of educational theory, of logic, of psychology, and so at last, when the little affair with the diploma was

settled, to philosophy. Now to come to logic over the bracing uplands of comparative anatomy is to come to logic with a lot of very natural preconceptions blown clean out of one's mind. It is, I submit, a way of taking logic in the flank. When you have realised to the marrow, that all the physical organs of man and all his physical structure are what they are through a series of adaptations and approximations, and that they are kept up to a level of practical efficiency only by the elimination of death, and that this is true also of his brain and of his instincts and of many of his mental predispositions, you are not going to take his thinking apparatus unquestioningly as being in any way mysteriously different and better. And I had read only a little logic before I became aware of implications that I could not agree with, and assumptions that seemed to me to be altogether at variance with the general scheme of objective fact established in my mind.

I came to an examination of logical processes and of language with the expectation that they would share the profoundly provisional character, the character of irregular limitation and adaptation that pervades the whole physical and animal being of man. And I found the thing I had expected. And as a consequence I found a sort of intellectual hardihood about the assumptions of logic, that at first confused me and then roused all the latent scepticism in my mind.

My first quarrel with the accepted logic I developed long ago in a little paper that was printed in the *Fortnightly Review* in July, 1891. It was called the "Rediscovery of the Unique," and re-reading it I perceive not only how bad and even annoying it was in manner—a thing I have long known—but also how remarkably bad it was in expression. It disregarded quite completely the fact that a whole literature upon the antagonism of the one and the many, of the specific ideal and the individual reality, was already in existence. It defined no relations to other thought or thinkers. I understand now what I did not understand then, and that is why it was totally ignored. But the idea underlying that paper I cling to to-day, and I will try and present it now, in I hope a more acceptable form, as the best opening of my general case. My opening scepticism is essentially a doubt of the objective reality of classification. I have it in my mind that classification is a necessary condition of the working of the mental implement but that it is a departure from the objective truth of things, that classification is very serviceable for the practical purposes of life but a very doubt-

ful preliminary to those fine penetrations the philosophical purpose, in its more arrogant moods, demands.

A mind nourished upon anatomical study is of course permeated with the suggestion of the vagueness and instability of biological species. A biological species is quite obviously a great number of unique individuals which is separable from other biological species only by the fact that an enormous number of other linking individuals are inaccessible in time—are in other words dead and gone—and each new individual in that species does, in the distinction of its own individuality, break away in however infinitesimal degree from the previous average properties of the species. There is no property of any species, even the properties that constitute the specific definition, that is not a matter of more or less. If, for example, a species be distinguished by a single large red spot on the back, you will find if you go over a great number of specimens that red spot shrinking here to nothing, expanding there to a more general redness, weakening to pink, deepening to russet and brown, shading into crimson, and so on, and so on. And this is true not only of biological species. It is true of the mineral specimens constituting a mineral species and I remember as a constant refrain in the lectures of Prof. Judd upon rock classification, the words " they pass into one another by insensible gradations ". You will think perhaps of atoms of the elements as instances of identically similar things, but these are things not of experience but of theory, and there is not a phenomenon in chemistry that is not equally well explained on the supposition that it is merely the immense quantities of atoms necessarily taken in any experiment that mask by the operation of the law of averages the fact that each atom also has its unique quality, its special individual difference. This idea of uniqueness in all individuals is not only true of the classifications of material science ; it is true of the species of common thought, it is true of common terms. Take the word *chair*. When one says chair, one thinks vaguely of an average chair. But collect individual instances, think of arm-chairs and reading chairs, and dining-room chairs and kitchen chairs, chairs that pass into benches, chairs that cross the boundary and become settees, dentists' chairs, thrones, opera stalls, seats of all sorts, those miraculous fungoid growths that cumber the floor of the Arts and Crafts Exhibition, and you will perceive what a lax bundle in fact is this simple straightforward term. In co-operation with an intelligent joiner I would undertake to defeat any definition of chair or chairishness that you gave me. Chairs just as much as individual

organisms, just as much as mineral and rock specimens, are unique things—if you know them well enough you will find an individual difference even in a set of machine-made chairs —and it is only because we do not possess minds of unlimited capacity, because our brain has only a limited number of pigeon-holes for our correspondences with an unlimited universe of objective uniques, that we have to delude ourselves into the belief that there is a chairishness in this species common to and distinctive of all chairs.

Let me repeat; this is of the very smallest importance in all the practical affairs of life, or indeed in relation to anything but philosophy. But in philosophy it matters profoundly. If I order two new-laid eggs for breakfast, up come two unhatched but still unique avian individuals, and the chances are they serve my rude physiological purpose. I can afford to ignore the hens' eggs of the past that were not quite so nearly this sort of thing, and the hens' eggs of the future that will accumulate modification age by age; I can venture to ignore the rare chance of an abnormality in chemical composition and of any startling aberration in my physiological reaction; I can, with a confidence that is practically perfect, say with unqualified simplicity "two eggs," but not if my concern is not my morning's breakfast but the utmost possible truth.

Now I submit to you as my first point for consideration, that syllogism is based on classification, that all hard logical reasoning tends to imply and is apt to imply a confidence in the objective reality of classification. Classification and number, which in truth ignore the fine differences of objective realities, have in the past of human thought been imposed upon things. Let me for clearness' sake take a liberty here —commit, as you may perhaps think, an unpardonable insolence. Hindoo thought (of which I confess I know very little) and Greek thought (of which I know scarcely more) impress me as being obsessed by the necesary conditions of human thought—by number and definition and class and abstract form. But these things, number, definition, class and abstract form, I hold, are merely unavoidable conditions to mental activity—regrettable conditions rather than essential facts. I have the impression that Plato regarded the *idea* as the something behind reality, whereas it seems to me that the idea is the more proximate and less perfect thing, the thing by which the mind, by ignoring individual differences, attempts to comprehend an otherwise unmanageable number of unique realities.

Let me finally give you a rough figure of what I am try-

ing to convey in this first heading of my discourse. You have seen the results of those various methods of black and white reproduction that involve the use of a rectangular net. You know the sort of process picture I mean—it used to be employed very frequently in reproducing photographs. At a little distance you really seem to have a faithful reproduction of the original picture, but when you peer closely you find not the unique form and masses of the original, but a multitude of little rectangles, uniform in shape and size. The more earnestly you go into the thing, the closer you look, the more the picture is lost in reticulations. I submit the world of reasoned inquiry has a very similar relation to the world I call objectively real. For the rough purposes of every day the net-work picture will do, but the finer your purpose the less it will serve, and for an ideally fine purpose, for absolute and general knowledge that will be as true for a man at a distance with a telescope as for a man with a microscope it will not serve at all. It is true you can make your net of logical interpretation finer and finer, you can fine your classification more and more—up to a certain limit. But essentially you are working in limits, and as you come closer, as you look at finer and subtler things, as you leave the practical purpose for which the method exists, the element of error increases. Every species is vague, every term goes cloudy at its edges, and so in my way of thinking, relentless logic is only another phrase for a stupidity, for a sort of intellectual pigheadedness. If you push a philosophical or metaphysical inquiry through a series of valid syllogisms—never committing any recognised or recognisable fallacy—you nevertheless leave a certain rubbing and marginal loss of objective truth and you get deflections that are difficult to trace, at each phase in the process. Every species waggles about in its definition, every tool is a little loose in its handle, every scale has its individual error. So long as you are reasoning for practical purposes about the finite things of experience, you can every now and then check your process, and correct your adjustments. But not when you make what are called philosophical and theological inquiries, when you turn your implement towards the final absolute truth of things. Doing that is like firing at an inaccessible, unmarkable and indestructible target at an unknown distance, with a defective rifle and variable cartridges. Even if by chance you hit, you cannot know that you hit and so it will matter nothing at all.

This assertion of the necessary untrustworthiness of all reasoning processes arising out of the fallacy of classification

in what is quite conceivably a universe of uniques is only one introductory aspect of my general scepticism of the Instrument of Thought. I have now to tell you of another aspect of my doubt, and that concerns negative terms. Classes in logic are not only represented by circles with a hard firm outline, whereas they have no such definite limits, but also there is a constant disposition to think of negative terms as if they represented positive classes. With words just as with numbers and abstract forms there are definite phases of human development. There is, you know, with regard to number, the phase when man can barely count at all, or counts in perfect good faith and sanity upon his fingers. Then there is the phase when he is struggling with the development of number, when he begins to elaborate all sorts of ideas about numbers, until at last he develops complex superstitions about perfect numbers and imperfect numbers, about threes and sevens and the like. The same is the case with abstracted forms, and even to-day we are scarcely more than heads out of the vast subtle muddle of thinking about spheres and ideal perfect forms and so on, that was the price of this little necessary step to clear thinking. You know better than I do how large a part numerical and geometrical magic, numerical and geometrical philosophy has played in the history of the mind. And the whole apparatus of language and communication is beset with like dangers. The language of the savage is, I suppose, purely positive; the thing has a name, the name has a thing. This indeed is the tradition of language, and to-day even, we, when we hear a name, are predisposed—and sometimes it is a very vicious indisposition—to imagine forthwith something answering to the name. We are disposed, as an incurable mental vice, to accumulate intension in terms. If I say to you Wodget or Crump, you find yourself passing over the fact that these are nothings, these are, so to speak, mere blankety blanks, and trying to think what sort of thing a Wodget or a Crump may be. And where this disposition has come in, in its most alluring guise, is in the case of negative terms. Our instrument of knowledge persists in handling even such openly negative terms as the Absolute, the Infinite, as though they were real existences, and when the negative element is ever so little disguised, as it is in such a word as Omniscience, then the illusion of positive reality may be complete.

Please remember that I am trying to tell you my philosophy, and not arguing against yours. Let me try and express how in my wild aboriginal mind this matter of

negative terms has shaped itself. I think of something which I may perhaps best describe as being off the stage or out of court, or as the Void without Implications, or as Nothingness or as Outer Darkness. This is a sort of hypothetical beyond to the visible world of human thought, and thither I think all negative terms reach at last, and merge and become nothing. Whatever positive class you make, whatever boundary you draw, straight away from that boundary begins the corresponding negative class and passes into the illimitable horizon of nothingness. You talk of pink things, you ignore, if you are a good logician, the more elusive shades of pink, and draw your line. Beyond is the not pink, known and knowable, and still in the not pink region one comes to the Outer Darkness. That same Outer Darkness and nothingness is infinite space, and infinite time, and any being of infinite qualities, and all that region I rule out of court in my philosophy altogether. I will neither affirm nor deny if I can help it here. If I use the word 'infinite' I use it as one often uses 'countless,' "the countless hosts of the enemy"—or 'immeasurable'—"immeasurable cliffs"—that is to say as the limit of measurement rather than as the limit of imaginary measurability, as a convenient equivalent to as many times this cloth yard as you can, and as many again and so on and so on. And, as I say, a great number of apparently positive terms are, or have become, practically negative terms and are under the same ban with me. A considerable number of terms that have played a great part in the world of thought, seem to me to be invalidated by this same defect, to have no content or an undefined content or an unjustifiable content. For example, that word Omniscient, as implying infinite knowledge, impresses me as being a word with a delusive air of being solid and full, when it is really hollowed and with no content whatever. I am persuaded that knowing is the relation of a conscious being to something not itself, that the thing known is defined as a system of parts and aspects and relationships, that knowledge is comprehension, and so that only finite things can know or be known. When you talk of a being of infinite extension and infinite duration, omniscient and omnipotent and Perfect, you seem to me to be talking in negatives of nothing whatever. When you speak of the Absolute you speak to me of nothing. If however you talk of a great yet finite and thinkable being, a being not myself, extending beyond my imagination in time and space, knowing all that I can think of as known and capable of doing all that I can think

of as done, you come into the sphere of my mental operations, and into the scheme of my philosophy.

But that is a theological digression.

These then are my first two charges against our Instrument of Knowledge, firstly, that it can work only by disregarding individuality and treating uniques as identically similar objects in this respect or that so as to group them under one term, and that once it has done so it tends automatically to intensify the significance of that term, and secondly, that it can only deal freely with negative terms by treating them as though they were positive. But I have a further objection to the Instrument of Human Thought, and that is one rather more difficult to convey.

Essentially this idea is to present a sort of stratification in human ideas. I have it very much in mind that various terms in our reasoning lie at different levels in different planes and that we accomplish a large amount of error and confusion by reasoning terms together that do not lie or nearly lie in the same plane. Let me endeavour to make myself a little less obscure by a most flagrant instance from physical things. Suppose some one began to talk seriously of a man seeing an atom through a microscope, or better perhaps of cutting one in half with a knife. There are a number of non-analytical people who would be quite prepared to believe that an atom could be visible to the eye or cut in this manner. But any one at all conversant with physical conceptions would almost as soon think of killing the square root of 2 with a rook rifle as of cutting an atom in half with a knife. Our conception of an atom is reached through a process of hypothesis and analysis, and in the world of atoms there are no knives and no men to cut. If you have thought with a strong consistent mental movement, then when you have thought of your atom under the knife blade, your knife blade has itself become a cloud of swinging grouped atoms, and your microscope lens a little universe of oscillatory and vibratory molecules. If you think of the universe, thinking at the level of atoms, there is neither knife to cut, scale to weigh nor eye to see. The universe at that plane into which the mind of the molecular physicist descends has none of the shapes or forms of our common life whatever. This hand is to him a cloud of warring atoms and molecules, combining and recombining, colliding, rotating, flying hither and thither in the universal atmosphere of ether.

You see, I hope, what I mean, when I say that the universe of molecular physics is at a different level from the universe of common experience;—what we call stable and

solid is in that world a freely moving system of interlacing centres of force, what we call colour and sound is there no more than this length of vibration or that. We have reached to a conception of that universe of molecular physics by a great enterprise of organised analysis and our universe of daily experiences stands in relation to that elemental world as if it were a synthesis of those elemental things.

I would suggest to you that this is only a very extreme instance of the general state of affairs, that there may be finer and subtler differences of level between one term and another, and that terms may very well be thought of as lying obliquely and as being twisted through different levels. It will perhaps give a clearer idea of what I am seeking to convey if I suggest a concrete image for the whole world of a man's thought and knowledge. Imagine a large clear jelly, in which at all angles and in all states of simplicity or contortion his ideas are imbedded. They are all valid and possible ideas as they lie, none in reality incompatible with any. If you imagine the direction of up or down in this clear jelly being as it were the direction in which one moves by analysis or by synthesis, if you go down for example from matter to atoms and centres of force and up to men and states and countries—if you will imagine the ideas lying in that manner—you will get the beginning of my intention. But our Instrument, or process of thinking, like a drawing before the discovery of perspective, appears to have difficulties with the third dimension, appears capable only of dealing with or reasoning about ideas by projecting them upon the same plane. It will be obvious that a great multitude of things may very well exist together in a solid jelly, which would be overlapping and incompatible and mutually destructive, when projected together upon a plane. Through the bias in our Instrument to do this, through reasoning between terms not in the same plane, an enormous amount of confusion, perplexity and mental deadlocking occurs. The old theological deadlock between predestination and free-will serves admirably as an example of the sort of deadlock I mean. Take life at the level of common sensation and common experience and there is no more indisputable fact than man's freedom of will, unless it is his complete moral responsibility. But make only the least penetrating of analyses and you perceive a world of inevitable consequences, a rigid succession of cause and effect. Insist upon a flat agreement between the two, and there you are! The Instrument fails.

It is upon these three objections, and upon an extreme

suspicion of abstract terms, that I chiefly rest my case for a profound scepticism of the remoter possibilities of the Instrument of Thought. It is a thing no more perfect than the human eye or the human ear, though like those other instruments it may have undefined possibilities of evolution towards increased range, and increased power.

So much for my main contention. But before I conclude I may—since I am here—say a little more in the autobiographical vein, and with a view to your discussion to show how I reconcile this fundamental scepticism with the very positive beliefs about world-wide issues I possess, and the very definite distinction I make between right and wrong.

I reconcile these things by simply pointing out to you that if there is any validity in my image of that three dimensional jelly in which our ideas are suspended, such a reconciliation as you demand in logic, such a projection of the things as in accordance upon one plane, is totally unnecessary and impossible. This insistence upon the element of uniqueness in being, this subordination of the class to the individual difference, not only destroys the universal claim of philosophy, but the universal claim of ethical imperatives, the universal claim of any religious teaching. If you press me back upon my fundamental position I must confess I put faith and standards and rules of conduct upon exactly the same level as I put my belief of what is right in art, and what I consider right practice in art. I have arrived at a certain sort of self-knowledge and there are, I find, very distinct imperatives for me, but I am quite prepared to admit there is no proving them imperative on any one else. One's political proceedings, one's moral acts are, I hold, just as much self-expression as one's poetry or painting or music. But since life has for its primordial elements assimilation and aggression, I try not only to obey my imperatives, but to put them persuasively and convincingly into other minds, to bring about *my* good and to resist and overcome *my* evil as though they were the Good and the Evil. And it is obviously in no way contradictory to this philosophy, for me, if I find others responding sympathetically to any notes of mine or if I find myself responding sympathetically to notes sounding about me, to give that common resemblance between myself and others a name, to refer these others and myself in common to this thing as if it were externalised and spanned us all. Scepticism of the Instrument is for example not incompatible with religious association and with organisation upon the basis of a common faith. It is possible to regard God as a Being synthetic in relation to

men and societies, just as the idea of a universe of atoms and molecules and inorganic relationships is analytical in relation to human life.

The repudiation of demonstration in any but immediate and verifiable cases that this Scepticism of the Instrument amounts to, the abandonment of any universal validity for moral and religious propositions, brings ethical, social and religious teaching into the province of poetry, and does something to correct the estrangement between knowledge and beauty that is a feature of so much mental existence at this time. All these things are self-expression. Such an opinion sets a new and greater value on that penetrating and illuminating quality of mind we call insight, insight which when it faces towards the contradictions that arise out of the imperfections of the mental instrument is called humour. In these innate, unteachable qualities lies such hope of intellectual salvation as we may entertain in this uncertain and fluctuating world of unique appearances. It has been the constant flaw of reasoned belief in the past that it excluded a humorous charity towards all but the petty and negligible contradictions of life.

So frankly I spread my little equipment of fundamental assumptions before you, heartily glad of the opportunity you have given me of taking them out, of looking at them with the particularity the presence of hearers ensures, and of hearing the impression they make upon you. Of course such a sketch must have an inevitable crudity of effect. The time I had for it—I mean the time I was able to give in preparation—was altogether too limited for any exhaustive finish of presentation; but I think on the whole I have got the main lines of this sketch map of my mental basis true. Whether I have made myself comprehensible is a different question altogether. It is for you rather than me to say how this sketch map of mine lies with regard to your own more systematic cartography. There were times in my reading of your *Personal Idealism* when, with a certain pride, I seemed to be sounding in response to modern Oxford, and times when I very distinctly was not. I chased your elusive common intention through eight various papers by eight various authors with some pertinacity. It was I will confess an arduous hunt. The quarry of your meaning took cover from me, now in Latin and now in Greek, tongues unknown to me, and when it trotted out on the other side it was always harder to follow than ever. There were passages of Hegelian, I remember, more terrible to a simple man than Greek. Figures of speech also distracted me extremely, Greek ethical students, for ex-

ample, throwing themselves into the arms of Nature, beneath the rarefied and shadowy form of the abnegating Sage, and a tangle of Narcissus and Hylas and Naiäds and the Judæo-Christian ideal and Nietzsche all appealing forcibly down the same paragraph. I am not accustomed to hunt in such richness of vegetation and I will admit perplexities and fatigues. Then I came upon "Science tells us," and immediately afterwards upon the word "scientist" and for a time I did not so much hunt as bolt. I made some flying leaps. Indeed I find your eight witnesses very difficult as a whole. With one I have prospered better, and as I read Mr. Schiller's Humanism there are times when I say almost without hesitation, this is about where I am. Almost without hesitation! And then again with the utmost hesitation. On the whole I think it is better to leave this question of our relative positions an open one for you to decide if you will.

V.—THE CONCEPTION OF EXPERIENCE IN ITS RELATION TO THE DEVELOPMENT OF ENGLISH PHILOSOPHY.

By T. M. Forsyth.

Nothing is more characteristic of English philosophy than the insistence, on the part of each of its exponents in turn, that his system is grounded on experience. However they differ from one another either in their fundamental tenets or in points of detail, they agree that philosophy consists in reflexion on, or interpretation of, experience. Even the term 'observation,' if used in a large sense, is not in general obnoxious to the view of his attitude to experience taken by the successive thinkers. Thus Locke, Hume, and Reid alike use the word 'observation' as applicable to inquiry into the fundamental principles of knowledge no less than to the investigations of (say) the physicist or the astronomer. No doubt, even as regards the methods of science, the term has to be used in a wide sense before it will cover all phases of the procedure. But it is only extending its use still further and not overstepping the limits of its most general and simplest meaning of 'notice' or 'look,'[1] to take it as describing the method of investigation in all spheres alike. Apart, however, from the satisfactoriness of any single word descriptive of method, the starting-point of philosophy is most simply and at the same time most fitly stated to be experience. And the insistence on this is typical of the English (not, of course, excluding the Scottish) manner of thought. Notwithstanding its diversities and antagonisms the English philosophy as a whole is distinctively a philosophy of experience. Reid, for example, in opposing Locke and his successors distinguishes the 'principles of reason' from what he regards himself as in agreement with them in calling 'experience'. But in a wider way he considers his stand-

[1] Comparison with the Greek *θεωρία* is perhaps not too trite to be suggestive.

point and procedure to be quite the same as theirs. "They have put us," he says, "in the right road—that of experience and accurate reflexion."[1] Their procedure "is the only one by which any real discovery in philosophy can be made".[2] And even when Hamilton distinguishes between the methods of observation and analysis, it is explicitly as two ways of investigating experience—those of generalising its facts and of ascertaining its necessary implicates.[3] Once more, not to multiply instances, we find Ferrier protesting against any limitation of the term 'experience' which implies that it signifies aught but the sole basis of knowledge.[4]

In view of this community of emphasis, it is easy to see that the differences between the phases or stages of English philosophic thought will be connected with the presuppositions of the various thinkers as to the general character or mould, so to say, of experience. Without going back so far as Bacon or Hobbes, we have the keynote of English philosophy struck in Locke's initial principle: "Whence has it [the mind] all the materials of reason and knowledge? To this I answer, in one word, From experience; in that all our knowledge is founded, and from that it ultimately derives itself."[5] What his philosophy or that of any of his successors shall mainly be depends on their first *aperçu* of the nature of experience. An outline of the phases through which English philosophy has passed will be coincident with that of the stages in the unfolding of the conception of experience.[6] Such an outline as can be given within moderate limits must be of the nature of a suggestion rather than a discussion.

We find Locke distinguishing two sources or kinds of experience—sensation and reflexion. But his statements concerning them do not serve to establish their distinction as either co-ordinate sources of the materials of knowledge or diverse functions of knowledge. For the various operations of the mind which are observed in reflexion are employed about the ideas obtained from sense; and further, the mind is as passive in the reception of ideas from reflexion as from

[1] *Works* (ed. Hamilton), i., 101. [2] P. 97.

[3] *Lectures on Metaphysics*, ii., 193.

[4] Cp. *Institutes of Metaphysic*, p. 255.

[5] *Essay conc. Human Understanding*, ii., 1, 2.

[6] In what follows experience is regarded from the purely cognitive standpoint. A reference (express or implied) to the essentially practical character of all experience can, however, scarcely fail of recognition by the student of English philosophy from Bacon onwards. This consideration does not invalidate, but it supplements and reinterprets, the other.

sensation.[1] Locke's designation of reflexion as internal sense indicates the comparative unimportance of the distinction so far as his authentic view of experience is concerned. The implication of this view is brought out in Hume's contention that impressions are the only originals of knowledge. He continues to distinguish impressions of sensation and of reflexion, but treats the latter, like ideas, as derivative. "The impressions of reflexion are only antecedent to their correspondent ideas; but posterior to those of sensation, and derived from them."[2] Hume's perception that it is erroneous to distinguish sensation and reflexion in such wise as to suggest that there are two diverse sources of experience is, like other of his differences from Locke, foreshadowed in several passages of Berkeley's early *Commonplace Book*. One passage in particular, which is entered as a memorandum in reference to his projected *Principles of Human Knowledge*, reads: "To begin . . . not with mention of sensation and reflexion, but instead of sensation to use perception or thought in general".[3] Thus although in the opening sentences of the *Principles* Berkeley uses language precisely similar to Locke's, he had previously doubted its propriety; and throughout his exposition of the principles of knowledge the terminology is frequently in accord with Hume's rather than Locke's. Moreover, his inclination to diverge from Locke's mode of statement takes another form in Berkeley's early notes,—one that is afterwards extended in his later writings. We find him questioning from the first the fitness of calling the operations of the mind 'ideas'; and his subsequent use of the word 'notion' in contradistinction to 'idea' for the operations or activities of mind is only an elucidation of his youthful suggestions. In the second edition of the *Principles*, where the new term first appears, Berkeley nowhere distinctly identifies mental operations with the notions which are said to be the apprehension of them; but in his later philosophical work, *Siris*,[4] this identification is expressly made. Ideas as passively received objects are directly opposed to notions, which are the acts or operations of the mind. In one aspect of it, Berkeley's conceptions of notions may be looked upon as foreshadowing the Kantian theory of knowledge;[5] more especially in respect of the connexion of notions with 'relations'. This suggestion, however, Berkeley does not further develop, and it remains wholly without influence on later

[1] *Essay*, ii., 1, 2-4 and 25.
[2] *Treatise*, i., 1, 2.
[3] *Works* (ed. Fraser, 1901), i., 27.
[4] Sect. 308.
[5] Cp. Prof. Pringle-Pattison's *Scottish Philosophy*, pp. 40-43.

thinkers. It is accordingly the reverse side of the distinction, namely the stress it lays on the passivity of ideas, that helps to bring out the view of experience which forms the fundamental presupposition of the whole Lockian development. This view is, that the original materials of knowledge are passively received data of sense *about* or *upon* which thought is engaged. Experience is regarded as consisting ultimately of unitary items of consciousness—which Locke and Berkeley call 'sensations' or 'ideas,' and Hume 'impressions'—that are known in isolation from one another. These distinct impressions or simple ideas are, Locke assures us,[1] the unequivocal certainties of experience. And Hume reiterates: "All perceptions are distinct". "All our distinct perceptions are distinct existences."[2] No doubt Locke, in the more specially epistemological portion of the Essay, in book iv., treats knowledge as consisting not in the isolated ideas themselves, but in apprehension of their relations of whatever kind.[3] But the very terms of his statement imply that the ideas are already known. It is as the *objects* of mind that they form material for its elaboration. Knowledge is said to be of the relations of what are nevertheless conceived as detached existences, known separately and forming at once the basis and the object-matter of thought. Alongside their relations to one another Locke puts their relation to real existence. But he is unable to make clear wherein this sort of relation differs from the other.

Now when we inquire into the connexions of this conception of experience, we find its source to lie in the attempt to explain experience as the outcome of the juxtaposition of individual minds with an independently existing material world. It is a consequence, therefore, of that complete antithesis of mental and material existence which gave its precise form to the central problem of modern philosophy; the initial phase of this problem being to account for the origin of experience on the presupposition of the mutual independence of mind and matter. Experience thus contemplated is plausibly supposed to consist fundamentally of disjunct occurrences in the experient mind. Although much of Locke's thought is inconsistent with this explanation of experience and should rather be interpreted as pioneer-work in the direction of surmounting it, it is unquestionably the

[1] *Essay*, ii., 2, 1.

[2] *Treatise* (ed. Green and Grose), i., 558, 559; (ed. Selby-Bigge), pp. 634, 636.

[3] IV., i., 1-7.

source of his predominant conception of the nature of ideas. The supposition, too, that in such discrete ideas are to be found the primary or immediate *objects* of the mind in which they occur is another outcome of the same original assumption.[1] It is the preconceived independence and disparity of the two existents that seem to make the mind's knowledge of its own states, as such, the basis of whatever else it may know. This view of ideas remains the controlling principle of the whole development. Hume's 'impressions,' however he may guard them against any assumption as to their origin, are essentially 'distinct perceptions'. They are separate existences apprehended in their isolation, and having no intrinsic relations either to one another or to anything else. In so far as his insistence on the separateness of ideas implies that abstract reasoning can establish no connexions between them it is invaluable. But it proves untenable when taken as giving an actual account of the experiential basis of knowledge.[2]

It is not my intention to go through in detail the consequences of this fundamental presupposition. What I wish to do rather is to look at the views of experience that appear subsequently in English philosophy and to consider their relations to it of opposition and development. A new phase in English philosophic thought—that inaugurated by Reid—begins with the rejection of this principle. The general result of Hume's philosophy may perhaps be expressed most simply by saying that it is the identification of *idea* and *existence*. From this feature in his doctrine, at all events, Reid's antagonism takes its rise. Ideas are objects (the Humian philosophy maintains), but there is no proof that they are ideas *of* objects in the sense of implying existences beyond themselves. The existence of anything and the idea of it are one and the same. As Hume puts it: "The idea of existence is the very same with the idea of what we conceive to be existent. To reflect on anything simply, and to reflect on it as existent, are nothing different from each other. That idea, when conjoined with the idea of any object, makes no addition to it."[3] In a word, the idea of the existence of an object is the same as the idea of the object. It follows, if they are ideas alone that are the objects of know-

[1] Cp. *Scottish Philosophy*, p. 15 ff.

[2] A complete 'answer' to Hume must be grounded on a psychology for which isolated data are essentially abstractions. Cp. Prof. James's *Principles of Psychology*, i., 245, 487.

[3] *Treatise*, i., 2, 6.

ledge, that the only existence we know is the existence of ideas. The inadequacy of this as an account of our experience Reid never doubts. He sets himself accordingly to examine 'the principles upon which this system is built': and he finds that it 'leans with its whole weight upon a hypothesis' for which there is no warrant—the hypothesis that the mind's own ideas are the only immediate objects of knowledge. Reid does not, as we have seen, consider the method or the basis of his philosophy to differ from those of his predecessors. Its method is observational; its basis is experience. The source of error in the preceding systems lies, he holds, in the 'theories' or assumptions which are unwarrantably foisted upon experience and so preclude an adequate interpretation of the facts. The root-assumption is the 'theory of ideas'. Reid sees clearly that the outcome of the Lockian development is already predetermined in the presuppositions from which it begins. The reasoning he acknowledges to be quite 'just': the conclusions follow inevitably from the premisses. "We must," then, "either admit the conclusion or call in question the premisses."[1] But the conclusion is one which Reid finds it quite impossible to accept. That ideas are 'the sole existences in the universe' is too flagrantly in contradiction with common sense to be aught but a self-refutation of the philosophy in which the conception occurs. He directs his attack therefore against the principles on which it is based.

In opposition to the fundamental assumption of the Lockian development Reid urges that the object of knowledge is always other than the idea in which it is known. In perception, for example, "the object perceived is one thing, and the perception of that object another".[2] The object is not a percept or idea, but a quality or a fact. Similarly, in memory and imagination the object is not the memorial or the constructive image, but a fact remembered or imagined. Even when the object is an idea, it is not identical with the idea that is the vehicle of the knowledge of it, and yet it is immediately and not merely mediately known. "Every object of knowledge is an immediate object."[3] In thus insisting that every object is as immediate as any other, Reid keeps more steadily to the divergence of his principles from any doctrine of representative knowledge or the issues which such a doctrine entails than does Hamilton. One of the latter's main criticisms of Reid is on the score that he fails to distinguish between immediate and mediate knowledge. But to say (as

[1] *Works*, i., 109. [2] P. 292; cp. 106. [3] P. 427.

Hamilton does[1]) that in memory, for instance, the immediate object of knowledge is the memory image, and that in perception what is directly known is only that portion of the material world which is in immediate contact with the sense-organs, all else being known inferentially from this; is to eliminate almost all that is of value in Reid's polemic. Hamilton's criticism only succeeds in showing that ideas, viewed as the vehicles of knowledge, may themselves be objects of knowledge—what neither Reid nor any other thinker denies.

Whether, then, the doctrines of the second phase of English philosophy shall be competent to supplant those of the first depends on the view of experience implied in the contention that objects or known existences may be other than ideas. Reid's theory of 'suggestion' is, as Hamilton clearly sees, inadequate as a substitute for the 'ideal system'. The conception that objects are suggested to the mind on occasion of the occurrence of its ideas does not sufficiently differ from the theory of representative knowledge to be secure against the logic for which the latter opens the way. Consciousness or immediate experience, and not any mediate function like suggestion or inference, must testify to the reality of existence as the object of knowledge. We find accordingly that Hamilton's appeal is to the 'deliverances' of consciousness and his argument directed towards establishing their validity. He distinguishes between the character of consciousness as fact and as truth, and says that while consciousness in its factual character is indubitable, as an attestation of existence beyond itself it requires at least indirect vindication.[2] But the very need of proof contradicts the supposition that external existence, as Hamilton views it, is matter of immediate experience. His argument involves—and this is a point he emphasises as against Reid and Stewart[3]—that our assurance of existence beyond the occurrence of our mental states is less direct and therefore less certain than that of the conscious states themselves. This Reid would not admit, and its denial is the stronghold of his position against the 'ideal theory'. The real significance of his and his successor's divergence from the principles of the preceding development appears in their contention that the primary

[1] *Dissertations* (Reid's *Works*, vol. ii.), pp. 810, 813-814; *Lectures on Metaphysics*, i., 218-219; ii., 153-154.

[2] *Lectures on Metaphysics*, i., 271 ff.; *Dissertations*, pp. 743-746; *Discussions*, pp. 86, 90.

[3] Cp. *Philosophical Essays*, p. 57, where the statement is made that internal or mental existence is no more certain than material or external.

act of mind is judgment.[1] In opposition to the Lockian theory of knowledge Reid maintains that ideas are not primarily apprehended as unitary existences in consciousness, but are abstractions from the judgments which are the ultimate mental facts. The objects of knowledge are not ideas which are isolated occurrences prior to it ; but are existences the ideas of which, in distinction from the existences themselves, are only subsequently apprehended.[2] The primary or root-judgment is the judgment that such objects exist ;[3] and this it is which guarantees the objective reference of conscious states. What this conception involves is that ideas or mental states, so far from being the sole objects of knowledge, are known only as the vehicles of a knowledge of objects other than themselves. But although Reid and Hamilton thus claim for experience an essentially objective character, they reinstate the assumption which it had been the outcome of the previous development to renounce—the conception that experience is the joint-product of two independent existences in juxtaposition with each other. Experience, in their view, is compounded of two factors or elements from different sources and with different natures. In a narrower meaning of the term, ' experience ' is used in much the same way as in Locke's theory for the factor contributed by the object ; while the ' principles of reason ' or the fundamental judgments of existence, relation, and so forth, form the contribution of the subject.[4] Experience is thus still conceived in an abstract way. Its objectivity is due to the impregnation of its data with an element that comes from another source than the data themselves. An endeavour to surmount this duality and vindicate the essential unity of the experiential source of knowledge is a main feature in the next phase of thought—the associational philosophy.

As the Scottish philosophy (specially so called) arises by way of reaction against the earlier development, so the philosophy of Brown and the two Mills, though directly descendent from such writers as Hobbes and Hartley, may be considered a counter-reaction towards a view akin to that of Locke and his successors. Moreover, the philosophic doctrines of the younger Mill, which one may take as the maturest expression of the associational philosophy, are expounded

[1] Cp. *Scottish Philosophy*, pp. 78-79, 102-106.

[2] *Works*, pp. 106-107, 209.

[3] Cp. " The primary act of consciousness is an existential judgment," Hamilton, *Dissertations*, p. 934.

[4] Reid, *Works*, p. 434 ff. ; Hamilton, *Lectures on Metaphysics*, ii., 347 ff.

in direct opposition to Hamilton's. In this antagonism of philosophic principles, as in the former one, we find the fundamental points of difference between the two systems to lie in a divergence of their ground-views of experience. In the first place, Mill impugns the conception that the declarations of consciousness require vindication: what alone is requisite is to ascertain what these declarations are.[1] Hamilton had distinguished between the facts of consciousness as evidencing their own existence and the same facts as evidencing the existence of something else beyond themselves; and had maintained that while it is impossible to doubt the fact of consciousness testifying, we may doubt the truth of what it testifies. Mill says the question is not as to whether the testimony of consciousness is trustworthy, but simply as to what its testimony is. In so saying he at once relieves his philosophy from a needless and self-refuting argument and pledges it to a more thorough analysis of experience. Mill proceeds, however, to rehabilitate the distinction between consciousness as dubitable and as indubitable, but in another way. In so far as his contention is that consciousness or experience requires no vindication but only interpretation, and that it is in respect of the latter alone that there is scope for controversy, he gives unquestionable expression to the most fundamental implication of the start from experience. But he identifies the indubitable aspect of consciousness not with the ever-present basis of all interpretation, but with what pertains to consciousness in its most primitive or least elaborated form.[2] His antithesis is between 'our consciousness in its present artificial state' and 'what is originally consciousness'. This implies an essentially limited view of the experiential basis. It is 'our primitive consciousness' as distinguished from 'our present consciousness' that is the depository of its certainties. The ultimate and primary facts of consciousness a growing experience conceals rather than reveals. Thus although Mill controverts the supposition that experience is to be supplemented by an element from elsewhere than its data themselves, his doctrine involves that it consists of primary data on which our interpretations are simply superimposed. Moreover, this primary or original outfit of consciousness consists of ideas or mental states that have no intrinsic reference beyond their own transitory existence. What reference they have is to other states (actual or possible)

[1] *Examination of Hamilton's Philosophy*, pp. 163-166, 172.
[2] Pp. 177-179.

of like character with themselves; and this reference is generated by the assumed associability of originally discrete experiences.[1] In Brown's philosophy the material world still appears as an independent reality suggested or inferred as the originating source of ideas,—an external reality known as to its existence and relations, though unknown as regards its essential nature.[2] This assumption Mill discards, and offers an explanation of the independent and objective character ascribed to material existence. But despite the value of his analysis, the underlying presupposition of the inherent subjectivity and disconnectedness of mental states makes it impossible for him to reach any adequate substitute for such an existent.

While, however, Mill's express philosophic doctrine is thus based on the presuppositions of the associational philosophy generally, the logical portion of his writings (both in the *Examination of Hamilton* and in his *System of Logic*) presents conceptions that point to a more concrete view of experience. The distinction between 'thoughts' and 'objects of thought' or between 'mental representations' and 'real objects,' the insistence on judgment as the primary act of consciousness and as asserting the connexion not of 'ideas' but of 'things,'[3]—these, taken in conjunction with his rejection of an originating source of ideas, are indications of a more adequate theory of knowledge; even if they also not infrequently appear simply to fall back on the supposition of an independent material world. What they imply is a conception of experience for which subjective states of consciousness are an abstraction from the concrete unity of knowledge,—one, therefore, for which experience has intrinsically an objective import.[4] But Mill does not reinterpret the one aspect of his thought in the light of the other, and the resolution of objects into mental states remains an intractable element in his philosophy. The distinguishing feature of his thought as a whole is his recognition of the futility of seeking an explanation of experience in anything outside itself. This recognition is a link between him and Ferrier.

A new phase in the development of English thought is entered upon in Ferrier's doctrine. He expressly claims for it a national character; and regards it as continuing, even in

[1] Pp. 227-231.—It has been abundantly shown by Mr. Bradley and other writers that association is inexplicable on the basis of discrete particulars—that is, without an element of continuity or inward connexion.

[2] *Philosophy of the Human Mind*, lect. ix.-x.

[3] *Exam. of Hamilton*, pp. 419-420; *Logic*, i., 5, 1.

[4] Cp. C. M. Douglas's *John Stuart Mill*, ch. iii.

its antagonism, the work of Reid and Hamilton. But within the development of English philosophy as a whole it is distinctly a new departure. The main thought in his philosophy is, that instead of allowing our interpretation of experience to be influenced from the outset by any assumption as to what is requisite in existence to account for the *origin* of knowledge, we must start from an inquiry into its *nature* or implications. Experience or knowledge cannot be accounted for by reference to anything in existence beyond itself; for any such explanation presupposes what it professes to explain. On the contrary, inquiry concerning the character of being must be approached through investigation of the character of knowledge.[1] Knowledge or the known, Ferrier maintains, involves two distinguishable though inseparable factors—subjective and objective. But this does not mean that subject and object are two existents which between them engender knowledge: it means that they are two elements or features of what is known.[2] Subject and object, therefore, or mind and matter can never, he argues, be known as independent of each other. The distinction between them is a distinction within experience and cannot be made a basis for an account of its origin. Further, when subject and object are taken as a distinction of existence outside knowledge instead of a distinction within it, they can never be brought into connexion with each other, —as the history of philosophy amply shows. Either they stand apart in complete separation or each in turn is emphasised at the expense of the other. But the subjective and the objective are not thus separable. What is known is never an object apprehended as existing independently of being known, nor is it the apprehension without any object distinguishable from it. It is neither (as in Reid's view) an independently existing material world, nor (as in Locke's) an object coincident with the apprehending idea. It is always object in union with, and yet distinction from subject; or an apprehended somewhat that is distinguishable though inseparable from its apprehension.[3]

But while Ferrier avoids making assumptions as to what is requisite to originate knowledge or experience, and proceeds instead to inquire what it is in itself, he does not

[1] *Institutes of Metaphysic*, pp. 44-46, 470, 498.

[2] Pp. 86, 391.—Ferrier's assertion is that subject and object are always known along with each other—that knowledge is of oneself together with whatever else is known. This, however, is not essential to the principle implied.

[3] Pp. 495-497: cp. *Philosophical Remains*, ii., 281-285.

succeed in avoiding assumptions with regard to its nature. Although, as already mentioned, he claims for experience its right to be regarded as the only source of knowledge, he yet distinguishes between two kinds of experience; and on their supposed antithetic character his whole procedure is based. "I do not," he says, "abandon experience as the ultimate foundation of *all* knowledge; only I maintain that there are *two* kinds of experience, both of which are equally experience, the experience of fact and the experience of pure reason."[1] 'Experience' in a narrower sense is opposed to 'reason' as the contingent and particular to the universal and necessary. Reason is conceived to be the source of necessary truths or principles which experience can at most only corroborate. "Experience may confirm the truth of [such a principle]; but reason alone can establish it effectually".[2] Elsewhere[3] he says that such principles, like all else, are to be referred to experience—to an experience of their necessity. But his conception of the necessity of any principle and his mode of establishing it vary between considering it ascertainable by abstract reasoning and as an implicate of concrete experience.[4] The same antithesis appears in Ferrier's depreciation of sense. His polemic against 'sense-experience' is valuable, so far as his contention is that sense is only one factor or aspect in knowledge and does not furnish data that are themselves separate items or 'completed objects' of knowledge. And he maintains that sense and intellect together constitute but one function of knowledge and are impotent apart from each other.[5] But he nevertheless regards the character of intellect or reason as ascertainable independently of the sense-experience with which it is its function to unite. Knowledge is thus treated throughout as an instrument having a nature of its own independent of the data to which it happens to be applied. From knowledge so viewed there is no passage possible to a characterisation of being. Ferrier's transition is accomplished through the assumption that reality, or truth about reality, is not self-contradictory; that is, that knowledge proceeding as alone it can is knowledge of reality.[6] This may truly be, as he says, a (or the) postulate of all knowledge. But it is thoroughly inconsistent with his own treat-

[1] In a letter quoted in Miss Haldane's *James Frederick Ferrier*, p. 80. This passage expresses Ferrier's attitude more succinctly than any in the *Institutes* or *Remains*.

[2] *Institutes*, p. 71: cp. 33-84. [3] P. 255. [4] Pp. 76, 83-4, 517.

[5] Pp. 256, 280-282. [6] P. 455.

ment of knowledge in separation from what is known. As against Ferrier's mode of statement, what requires to be maintained is that knowledge has no being independent of that which it interprets, and that only by abstraction can it be viewed as invested with a character of its own.

The necessity of beginning, without assumptions, from a consideration of the general nature of experience is recognised in John Grote's *Exploratio Philosophica*. The expression there given to the experiential basis of knowledge is such as on the whole underlies present-day discussion in philosophy. Grote's exposition of philosophic principles is throughout interwoven with comment on the procedure of his predecessors in English philosophy; and the view of experience he goes upon may be taken as typical of conceptions current in recent philosophic inquiry. One may regard this view as in a measure the fulfilment of the preceding stages in the development of the conception. Grote's initial contention is, like Ferrier's, that we cannot begin our philosophy from any assumption as to existence supposedly independent of the knowledge of it. We cannot, for instance, assume a material world existing independently of being known and a mind or consciousness which knows this independent existence. "Knowledge is not the bringing of one thing which is, into the relation which we call knowledge with another thing which is." For the ultimate fact—'the basis upon which all rests'—is not the existence of anything, but the knowledge or thought of it as existing: the existence of anything is ultimately indistinguishable from its 'known-ness. Or as he puts it briefly in one passage, "All that we call existence is for us a *thought* of ours".[1] When once we have 'by a comparison of experiences' definitely conceived the existence of anything, we may give our attention to it as existing, leaving out of consideration meanwhile the dependence of this upon its being thought or known as existing; just as we may also look at knowledge in abstraction from the nature of what is known. But neither of these is the fundamental or entire view.[2] We may concern ourselves (as Grote phrases it) to 'know about' what we are already 'acquainted with'; but our acquaintance with it is what gives it existence for us.[3]

Experience therefore does not, on Grote's view, consist originally of facts about or upon which thought is engaged. It may be described, he says, as notice of fact or as fact

[1] *Exploratio Philosophica*, i., 59, 109; cp. introd., p. xiv.
[2] I., 17, 83-84. [3] I., 123-124.

presenting itself to our notice; but it is not fact *and* notice of it, for these two are the same in different words.[1] Experience has always the two aspects; which may be called 'immediateness' and 'reflexion'. Reflexion is the characterisation of what, apart from this, would be characterless or meaningless. Without immediacy there would be no reality or truth to know; without notice or acquisition of meaning (definiteness, however slight), there would be nothing known.[2] "So far then," Grote maintains, "as there are two elements of our knowledge, they are not thought and experience (that is, what is commonly meant by these words), but immediateness and reflexion. Only, it is to be observed, these constitute no antithesis—they stand in no contrast the one to the other. They are not, *e.g.*, anything that can be called the matter and form of knowledge, for reflexion gives no *form*, no new being or reality to immediateness: all the form and reality is already in the immediateness: they are more like the body and soul of knowledge, except that immediateness has all the *life* of knowledge, though as yet but embryonic and undeveloped: all it wants is quickening: till reflexion does this, it is knowledge in the germ, but not proper knowledge."[3] The term 'experience' accordingly cannot be restricted to one element in knowledge supposed to be the contribution of the object or of sense, and requiring to be supplemented by an element of thought contributed by the mind or subject. Nor can knowledge be described as arising in the mind without any production or spontaneity, from data which are supposed to originate from anything existent or are viewed as if they so originated. For, on the one hand, the immediacy which is the basis of knowledge, is the source of whatever the most developed knowledge contains—'relations' as well as 'qualities';[4] and on the other hand, without notice or characterisation there is no knowledge of one thing any more than of another.[5]

On immediate experience then, according to this view, all knowledge is based; and it arises wholly by way of notice[6] (or appreciation) of what is involved in this. The distinctions of subject and object, minds and things, like all other determinations, arise from and are again referred to it.

[1] II., 226. [2] II., 147, 182. [3] II., 156.

[4] Cp. Prof. James, *Principles of Psychology*, i., 243 ff.; L. T. Hobhouse, *Theory of Knowledge*, pt. i., ch. ii.

[5] *Explor. Philosophica*, ii., 159, 218-221.

[6] In 'notice' the cognitive may be regarded as joining hands with the practical.

Subject and object[1] are what are over against each other as two distinct though united features of experience. As knowledge progresses these two develop into an explicit distinction of self and not-self, conscious states and their objects. But although they arise out of indistinction, they never altogether fuse or are other than complementary features of reality.[2] What we call existence is this reality, in which self and not-self antithetically participate, as in any measure defined or characterised.

The conception of experience here presented no doubt raises questions in place of those it transcends; but it gives a more concrete basis than any afforded in the preceding theories. As already said, it is a view such as mainly forms the basis of present-day discussion of philosophic problems. Even when the topic of discussion is precisely the general character of the experiential source of knowledge—say, its subjective and objective reference, or its features of immediacy and mediation—present controversy moves for the most part within the general confines of such a view as this. Its main import is its recognition that experience is not to be accounted for by reference to anything outside itself, that its combined subjectivity and objectivity are to be vindicated without annulling its unity, and that 'sense-qualities' and 'thought-relations' are not to be regarded as having different sources or fundamentally diverse natures. The general view of experience implied may be summarised, in conclusion, in such a way as to indicate both its own character and its relations to the other conceptions above outlined.

Experience is never only subjective or only objective. As the source of knowledge it is essentially one, and yet is never without a dual character. It does not consist of irrelative items that are either impossible of relation or await relation from without: its terms are discrete, but their relations are continuous. And it is always the passing of the relatively indeterminate into the relatively determinate, or the acquisition of meaning by what is real though undefined. There is no immediate knowledge, yet no knowledge other than interpretation of the reality present in immediate experience; and none that is merely mediate, for knowledge always involves a basis or warrant in the real. Experience cannot be explained. It can only be gradually characterised,—by the progressive coincidence of notice, or appreciation, with im-

[1] Subjective and objective seem ultimately coincident with immediate and reflected. Cp. S. H. Hodgson, *Metaphysic of Experience*, i., 72-75.

[2] Cp. *Explor. Philosophica*, i., 22-23, 47-48; ii., 180-183.

mediacy. And of reality so far as uncharacterised, we can only say that it is what in knowing we know, or that knowledge as such is knowledge of it. Lastly, as all experience is reflexion or notice of immediacy, philosophy begins in further notice or reflexion directed to the former as it subsists in its own immediate character.

VI.—CRITICAL NOTICES.

The Pathway to Reality: Stage the Second. Being the Gifford Lectures delivered in the University of St. Andrews in the Session 1903-1904. By the Right Honourable Richard Burdon Haldane, M.P., LL.D., K.C. London: John Murray, 1904.

This volume of Lectures is a continuation of the lectures on the same foundation recently reviewed in these pages. Delivered in the same way as the former course—that is to say—delivered *extempore* and taken down by a reporter, they are marked by the same astonishing brilliancy, and are open to the same kind of criticism, as the former course. On the whole, however, Mr. Haldane does a good deal to clear up and defend his position, and to meet the difficulties which the present reviewer, among others, had ventured to suggest. Some of the more extreme modes of stating his position too seem to be here toned down or at least do not reappear.

Mr. Haldane begins with a defence of himself against the obscurity with which some of his critics (it appears) had charged him. His defence is the well-known defence of Hegel—that people have no more right to expect to find Philosophy easy reading than an unmathematical reader has to find it possible to understand a work of advanced Mathematics without severe study and application. In so far as such complaints against the Master or some of his disciples represent simply the discontent of an untrained reviewer who sits down to an advanced philosophical book expecting to be able to pronounce a magisterial judgment with the same ease which he experiences in dealing with a novel or even an historical work upon a period of which he knows nothing, the answer is adequate enough. Mr. Haldane's Lectures are undoubtedly as lucid as is compatible with the nature of the subject and his own philosophical position. As regards Hegel and Hegelianism in general Mr. Haldane might in fairness have recognised that the difficulty of understanding what the Master meant is recognised not only by profound Philosophers (Schopenhauer, for instance, was scarcely an incompetent student of Philosophy), but by Hegel's professed admirers, interpreters, and disciples. It is not only that there are particular points of disagreement, but there is no approach to

a consensus as to his central position. Mr. Bosanquet, for instance (of whom Mr. Haldane speaks with a deference which somewhat exceeds the demands of courtesy among the learned), would probably profess to express the Master's mind as faithfully as Mr. Haldane; at all events Mr. Haldane speaks as if he felt himself (of course with the reserves which every independent thinker must make in such professions) to be in substantial agreement with Mr. Bosanquet. Yet it is obvious to those who do not profess to move within the charmed circle of Hegelianism that at least on the side of Religion and Theology the difference between them is profound. Mr. Bosanquet does not believe in God in any sense which would seem to supply the smallest satisfaction to the ordinary religious consciousness. Mr. Haldane's idea of God, though it may not be wholly acceptable to the orthodox Theist, is at least that of a man who feels himself in sympathy with ordinary Theism and Christianity. God is with him at all events self-conscious. Mr. Haldane even indulges in a warm eulogium upon the Athanasian Creed (without, however, attempting a Hegelian vindication of the damnatory clauses). As to Dr. McTaggart, it is not too much to say that his interpretation of what Hegel actually meant is not merely different from that of Mr. Haldane, but the inverse of it. In Dr. McTaggart's version of Hegel the individual human consciousness (though but a part of the Absolute) is the only consciousness: for Mr. Haldane the individual consciousness is a mere "aspect" or even a "metaphor". Now of course these diversities of interpretation do not show that Hegel was not a great thinker; it is one of the notes of the great thinker to give rise to very divergent lines of thought. But when the disciples all persist in attributing their own opinion to the Master, it is surely unreasonable to suggest that any difficulty which any one may have in understanding what he meant must be the reader's own fault: and still more unreasonable to attempt to claim for the particular interpretation favoured by the writer the kind of authority which is due in any subject to the consensus of the competent. Mr. Haldane for instance constantly says, "Philosophy teaches," when at most it is Hegelianism that so teaches—sometimes only a particular section of the Hegelian School. Like the boasted unity of "Catholic teaching," the consensus often turns out on examination to consist rather in a determination to use the same phrases than in any identity of meaning assigned to them.

The present volume confirms the impression that Mr. Haldane has not really been uninfluenced by the criticism of such writers as Lotze and Mr. Bradley. Nothing can be more explicit than his repudiation of the attempt (with which he admits that some Hegelians have been not unreasonably charged) to get rid of sensation or feeling or the immediate element in knowledge, and to reduce all reality to mere discursive thought or abstract universals. As to Hegel's own attitude, he quotes explicit assertions of the Master, but I cannot help suggesting that he a little forgets

that in this or other matters (when we are dealing with a thinker of the first rank) the question is not so much whether he makes here and there a certain admission as whether he sufficiently bears it in mind in the general tone and tenor of his work. Nobody can suppose that a man of Hegel's powers should not in some part of his work have recognised the obvious fact that feeling had something to do with our knowledge. A diligent search will discover such admissions in Green, but that did not prevent him from repeatedly declaring that the world was nothing but "a system of relations". However, whatever may be thought of Mr. Haldane's vindication of his Master on this point, he leaves no doubt as to his own position. "Mind is just as much feeling as thought" (p. 41), and feeling, as it comes to us in the earliest stage of experience, "cannot be defined" (p. 31). But he still seems anxious to represent feeling as only a kind of thought—a mode of speaking which, I cannot but think, tends towards the ignoring of the differences between the two elements or (if the phrase be preferred) "aspects" of reality, and towards the evasion of the many difficult problems which turn upon the relation between them.

The first part of the present work is devoted to the completion of the argument begun in the previous volume. The second is devoted to the consideration of "finite Mind". And here the most original feature of Mr. Haldane's treatment is a very candid and thorough attempt to grapple with that problem which most Hegelians so systematically evade,—the relation of their system to those hopes or dreams of a future life which have at all times formed an inexpugnable element of any high religion that is worthy of the name.[1] Hegel's own treatment of the subject was (no doubt for sufficient reasons) so evasive that his attitude has been diversely interpreted by his profoundest students. And there has been the same difference among his followers. The more theologically orthodox disciples like Green have expressed more or less decided belief in a personal Immortality, and have hardly attempted to reconcile their private conviction as men with a philosophy which proclaims the subjectivity of time and tends towards the treatment of individuality as a mere seeming essentially connected with the perishable animal organism. The less orthodox have passed over the subject with silent scorn or some contemptuous assurance that the true eternal life is a thing that may be enjoyed here and now, and that, since all spirits are really One, it must be a matter of indifference who it is that enjoys it. Mr. Haldane treats the matter more seriously. He has more sympathy with some at least of the motives which prompt this persistent demand of the human spirit.

[1] Lest any one should object that this ignores Buddhism, it must be remembered that even if Nirvana be properly thought as the extinction of all consciousness, no Buddhist expects to attain Nirvana till after the expiration of many lives, in the course of which he receives the just recompense of his deeds.

At all events we are spared the banal sneer that those who want a personal immortality for themselves or others are merely stipulating for a *trink-gelt* for their virtue. And he makes a gallant effort to show that the sense of oneness with and inclusion in a "timeless" Absolute, or rather (since Mr. Haldane does not much favour that phrase) an Absolute in which time-distinctions are included without being lost, can be made an effective emotional substitute for the hope of a real and personal Immortality. The attempt is so little successful to my mind that I can hardly trust myself to summarise the attempt without a danger of caricaturing it. These are the sort of consolations that Mr. Haldane is prepared to offer to those who have not found the "appearance" or "aspect of Reality" which they call their personal life so satisfactory a thing (either from a hedonistic or a spiritual point of view) as Hegelianism assures them it really is, and who have failed to detect in a futureless terrestrial existence that "meaning" of which (for the Absolute) it is full. "It is only when we fall into the abstractions of the understanding which take what is presented as final in their own distinctions as final, and as representing complete truth and complete reality, that we rebel against this view" (p. 215)—the view that the death of the particular living creature is natural and necessary. It is only this same wretched understanding which supposes that a man must be either mortal or immortal: "there is a higher conception through which the sharp antithesis disappears" (p. 221). Hegel "points out that the subject is certain of its own infinite, non-sensuous substantiality; that the form of its self-consciousness consists in an endless yielding up of its particularity, and finds its infinite value only in what he calls Love, which consists in infinite sorrow and arises out of it" (p. 233). "The grave and this temporal present, taken as events, turn out, from a higher standpoint, to be appearance merely, and not to be representative of reality" (p. 238). "Could we think out life, or even a particular event in it, completely, there were no room for the abstract antithesis of Death" (p. 244). These passages of course fail adequately to represent Mr. Haldane's treatment of the subject, but after all these assurances do not seem quite to satisfy even their author. In the following passage he approximates a little more nearly to the common view: "It may well be that between the extremes of mere duration on the one hand and being above time on the other, we can analytically construct the conception of a life which the understanding cannot present as existence in mere temporal sequence, but which, while it preserves in us the differentia of otherness and individuality, is yet not necessitated to present itself to itself, even in immediacy, as a passing phenomenon" (p. 249). Those who are less convinced that our inability to resolve the antinomies involved in the nature of time as we know it justifies us in talking about a timeless Absolute, will perhaps venture to translate for themselves Mr. Haldane's words into some such very crude and un-Hegelian

language as the following: "There is no reason why personal Immortality should not be true, though we cannot even say it in a way which is free from difficulty, and it may be reconcilable in some way which we cannot understand with the difficulties inherent either in the idea of an endless succession or of a time-series having a beginning and an end" (p. 249). The difference between the two modes of expression is that Mr. Haldane's disguises, while the more popular mode of statement admits, our inability to solve the difficulties inherent in the problem of Time.

The complaint of the outsider against many of the Hegelian doctrines and formulæ is not so much that they are untrue as that their upholders persist in representing them as containing much more truth and importance than they really possess—as clearing up problems of which they are really little more than the statement. This is eminently so with the doctrine of the subjectivity of Time which constitutes the great difficulty of a belief in a personal Immortality for the Hegelian mind. When that doctrine is stated with the caution and reserve employed by Mr. Haldane, who constantly protests against the idea that time-distinctions are simply lost and merged "in the Absolute," the position that time-distinctions are transcended in the Absolute, or are distinctions which exist merely in and for the being of the Absolute, means after all very little more than this—that in some way which it is admitted we do not and cannot understand the antinomies which exist for us do not exist for God. The Hegelian never succeeds in explaining how time is thought by God without falling into language which palpably eliminates just what constitutes the essence of time as we know it. Mr. Haldane for the most part avoids such imprudences, but even he makes no attempt to suggest *how* the admission that the Absolute is out of time really solves the problem. If we grant that in some sense the whole series is from the point of view of the Absolute present together, we are not yet rid of the difficulty. Either the series must be thought as having a beginning and an end, or as being beginningless and endless. Merely to say that there must be some *tertium quid* without saying what it is, is not to think but to give up thinking. Distinctions are not to be "transcended" by merely saying that they are transcended or antinomies to be resolved by merely putting them together and pronouncing them resolved.

One of Mr. Haldane's critics has, it appears, been unwise enough to disparage his work on the ground that it is only a restatement of Hegel. Hegel is a thinker whose books, whatever their true importance when properly understood, either are (to use words attributed to the late Prof. Green) "a great confusion" or appear to be so even to readers who (like Green) are nevertheless largely indebted to him. If the confusion be really there, the interpreter who removes it becomes an original thinker: if it is not there, the task of removing the appearance of it is none the less one which demands a metaphysical brain of the highest order.

Such a brain it is almost superfluous to say Dr. Haldane possesses. And he possesses what does not always go with it—consummate powers of lucid exposition—of expounding as lucidly as the philosophical position which he takes up admits of being expounded. If we put aside Dr. McTaggart, whose Hegelianism is avowedly a new departure, Mr. Haldane is probably the clearest and ablest interpreter of Hegel's central position; and all interpretation of Hegel is necessarily also to some extent a development. Some of Mr. Haldane's readers may (like the present reviewer) be personally inclined to the belief that other and less faithful developments have in them the seeds of greater progress than Mr. Haldane's, that the most serious problems of Philosophy at the present time are problems which the Hegelian mode of thinking simply leaves on one side, and that the Philosophy of Aspects will in the end be found to represent but an aspect of the Philosophy towards which man is groping. But few, at any rate among those who call themselves Idealists, will doubt that Hegel has taught the world much, and that lesson has to a great extent to be learned afresh by each individual student of Philosophy. Such students will for a long time to come be very grateful to Mr. Haldane for the help he has given them in learning it. At all events that is very emphatically the feeling with which the present reviewer lays down the book.

If we put aside a few passages about the merely "metaphorical" character of the individual finite mind, Mr. Haldane's is an eminently sober presentation of Hegelianism. And when Hegelianism is presented in a sober way, the difference between Hegelianism and many of its critics tends to become one of stress, of emphasis, of relative importance. Doctrines which seem to the Hegelian of inexpressible value seem to the outsider true enough as far as they go, but to be truths of comparatively little moment as compared with others which are ignored or denied. This is particularly the case when we turn to the practical and religious significance of Mr. Haldane's position. Mr. Haldane gives us the impression (which the young men who repeat the stock phrases as they might repeat the verses of Empedocles do not give us)—that to him Hegelianism means much, that to him in a word it is really a Religion, and serves the purpose which for more commonplace minds are served by the religious beliefs which he can regard merely as "symbols" of the truth. But why Mr. Haldane should feel all this emotion about such an Absolute as he describes, why it should cause him any satisfaction to think that he (like Nero or Caligula) is part of a super-moral Absolute, what help or inspiration, what consolation or stimulus, he can expect to find from the contemplation of Him, I for one find it difficult to conjecture. For, though it is true that Mr. Haldane quotes with approval Hegel's very Hegelian explanation of the Christian idea that "God is Love," that explanation resolves it into a consciousness of unity with a Being of whose character we after all know nothing except what is implied by this unity not only with Socrates but with Nero.

The Hegelian "love" seems to be a metaphysical abstraction. The Hegelian Religion as interpreted by Mr. Haldane seems to be Religion with the clerical element left out, though it fills him with an emotion which we should have supposed could be inspired only by a Being who realises an ethical ideal. As to why the Absolute should manifest Himself in Nero and his like, he has nothing to tell us beyond the usual assurances that, if we find anything amiss in the world, that is due merely to our limited point of view and the "fallacies of the abstract understanding". Those whose misgivings decline to be exorcised by the utterance of that mighty spell, cannot help asking themselves why they should distrust the moral judgment which tells them that much in this world really is amiss, and yet not distrust the moral judgment which tells them that they were born to set it right. It is true that Mr. Haldane's Optimism is implicit rather than explicit, but we are nowhere told of the grounds on which it rests, or how Morality can be even an "aspect" of a world in which nothing is really and ultimately wrong, except in the sense in which delusions and errors are undoubtedly aspects of the Real.

H. RASHDALL.

Recent Tendencies in Ethics. By W. R. SORLEY. Edinburgh and London: Blackwood, 1904. Pp. vii, 139.

THIS little volume, which consists of three lectures given to a summer meeting of clergy at Cambridge, is a specimen, and a very admirable specimen, of a most useful kind of literature, which similar occasions have called forth in abundance in Germany, but which is not so common in this country—the critical survey or report by an expert upon recent developments in his own department, made for the benefit of an audience in whom some general acquaintance with the subject may be presupposed. Such a survey and criticism, if at all well done, is a most valuable aid to study, and in the present case there can be no doubt that the task is performed in a masterly way. The work possesses in a high degree the qualities appropriate to its kind: breadth of treatment, clearness of style, concentration upon main issues, and a truly remarkable ease and simplicity in the manner of presenting them. Prof. Sorley speaks in his Preface of the "popular" form of the lectures, but there is in them none of that diffuseness of style and evasion of difficulties which one is apt to associate with the word. They are popular only in their necessary suppression of subordinate details and their success in dispensing with technicalities. In a word, they are models of their kind.

The first of the three lectures describes broadly the character of recent ethical thought in contrast with the thought of last century, the second and third deal with the two most prominent types in recent ethics, the Evolutionist and Idealistic, respectively.

What strikes the author in the ethical controversy of last century between Intuitionists and Utilitarians is the limited range and academic character of the questions in dispute. However opposed the views of the disputants were in regard to the origin of moral ideas and the criterion of morality, this opposition in theory did not preclude a very general agreement as to practical rules. The situation is very different now. "There are many indications in recent literature that the suggestion is now made more readily than it was twenty or thirty years ago that the scale of moral values may have to be revised; and it seems to me that the ethical controversies of the coming generation will not be restricted to academic opponents whose disputes concern nothing more than the origin of moral ideas and their ultimate criterion. Modern controversy will involve these questions, but it will go deeper and it will spread its results wider: it appears as if it would not hesitate to call in question the received code of morality, and to revise our standard of right and wrong" (pp. 12-13). The most conspicuous and extreme exponent of this demand for the revision of moral values is, of course, Nietzsche, and the author sketches his views briefly by way of illustration.

The latter part of the first lecture considers the influences that have been operative in determining the direction which recent ethical thought has taken. The special consideration of the influences operative at the present time is prefaced by a general distinction between "two quite different kinds of influence to which the formation of an ethical doctrine may be due. In the first place, there are the moral sentiments and opinions of the community and of the moralist himself; and, in the second place, there are the scientific and philosophical doctrines accepted by the writer or inspiring what is loosely called the spirit of the time" (p. 26). This distinction is important and would bear to be more emphasised. It really suggests in an abstract form the fundamental criticism which is later applied in the concrete to Evolutionist and Idealistic ethics, *viz.*, that ethical theory must take for its starting-point and basis the moral consciousness itself, and not seek to interpret and systematise *moral* facts by means of principles derived from *non-moral* sciences. That the defects of these two types of theory arise from the violation of this simple but essential canon is, in fact, the lesson of the whole book. "It seems to have been assumed," says Prof. Sorley in his final summing up, "that moral principles can be reached by the application of scientific generalisations or of the results of a metaphysical analysis which has started by overlooking the facts of the moral consciousness. . . . I have contended in these lectures that neither the mechanical unity of the naturalists nor the rational unity of the idealists has succeeded in comprehending within its unifying principle the essential nature of morality with its deep-going dualism of good and evil" (pp. 132-133).

To revert to those more relevant influences that belong to the first of the two kinds distinguished by Prof. Sorley, there is much

in his impressive but somewhat grave statement of them that one would like to quote, but the following passage must suffice. "Perhaps the greatest danger of the new social order is the growing materialisation of the mental outlook. It would be needless to point to the evidence, amongst all classes in the mercantile nations, of the feverish haste to be rich and to enjoy. For to point to this has been common with the moralists of all ages. This age like others—perhaps more than most—is strewn with the victims of the struggle. But it can also boast a product largely its own—the new race of victors who have emerged triumphant, with wealth beyond the dreams of avarice of the past generation. Their interests make them cosmopolitan; they are unrestrained by the traditional obligations of ancient lineage; and the world seems to lie before them as something to be bought and sold. Neither they nor others have quite realised as yet the power which colossal wealth gives in modern conditions. And it remains to be seen whether the multi-millionaire will claim to figure as Nietzsche's 'overman,' spurning ordinary moral conventions, and will play the *rôle*, in future moral discourses, which the ethical dialogues of Plato assign to the 'tyrant'" (pp. 30-31).

I am afraid I have left myself too little space to do justice to the second and third lectures. Both these lectures, indeed, are so closely packed, that I had better not attempt to summarise them. If I had to make a choice where all is good, I should say that the second lecture is the most excellent of the three. It gives in a short compass the most masterly and yet simply expressed criticism of Evolutionist ethics which I know, and it owes its quality, I think, to this, that the author confines himself in the main to making clear those broad and fundamental distinctions which Evolutionary ethics tends to confuse or ignore.

The third lecture is probably that which will encounter most professional criticism, and perhaps not altogether without a certain provocation, for Prof. Sorley himself seems moved by the intimacy of academic controversies to a more individual, detailed, and unsparing style of criticism. No doubt the general justice of his criticism of Green and Bradley, with whose metaphysical doctrines as bearing upon ethics he is mainly concerned, will be fully admitted by all but the more ardent disciples of these masters. But I think the said disciples will be able to fasten upon some small matters here and there, in which Prof. Sorley has dealt somewhat harshly. Thus he argues that the permanence which Green takes as a mark of true good or satisfaction affords no definite criterion of moral value. But perhaps the chief use of this note of permanence for Green himself was that it settled the claims of Hedonism. And after all it does seem a pretty definite and important point to take, that transient pleasures have in them no element of progress, contribute nothing to the permanent interests which unify (or, in fact, constitute) a life.

The criticism of Bradley is sharp, but, of course, only follows

therein, at a distance, the example of that critic himself. The two divergent tendencies in Mr. Bradley's metaphysical theory are well brought out, though, as Prof. Sorley says, "what would be contradiction in another writer is only two-sidedness in Mr. Bradley". I will content myself with one quotation. "All our predicates, Mr. Bradley teaches in his *Logic*, have reality—the universe of reality—for their ultimate subject. In this sense it may be possible to speak of reality as good. . . . But the question remains what we mean by 'good' in this connexion. . . . And the answer must be that Mr. Bradley means very little, since the goodness is manifested 'in various degrees of goodness and badness'. . . . [The term] seems to be used of reality in a somewhat vague sense, as it were *jure dignitatis*, and to have as little ethical significance as 'right honourable' when applied to a politician or 'reverend' to a clergyman: cases in which it may be consistent to say that right honourable gentlemen manifest various degrees of honour and dishonour, or that reverend gentlemen are worthy of various degrees of reverence or the opposite" (p. 107).

In the peroration to the whole discourse Prof. Sorley tantalises his readers with the slightest possible glimpse of his own ethico-metaphysical position. His intention, of course, is simply to indicate, as the positive outcome of his criticism, what in his view is the line which a truer solution of the ethico-metaphysical problem must endeavour to follow.

H. BARKER.

Nietzsches Philosophie. Von DR. ARTHUR DREWS. Heidelberg, 1904. Pp. viii, 558.

PROF. DREWS has given us an admirably full and clear account of Nietzsche's development, which I recommend to all those with whom the tincture of Nietzsche administered in literature, and even philosophy, has disagreed. Thanks to the efforts of ill-informed writers, public attention has been practically restricted to the last of Nietzsche's three distinct periods, and that the one most tainted with the suspicion of incipient insanity. If we are to form a just estimate of the man's philosophical place and importance, we must learn to see his works in their true perspective, and here we have the means. Prof. Drews has wisely gone very thoroughly into Nietzsche's middle or positivist period, which, although of little originality, is of immense importance. He has shown that we have there to do with no unmotived change of mood, but merely with the growing predominance of one element in a complex mood. Nietzsche had at first hoped that the individual was to be saved by means of art; but, even in his first period, there had been a strong undercurrent of empirical philosophy. Smarting from his disillusionment with Bayreuth, he began to depreciate art as a thing evanescent and ephemeral alongside the

bodily organism and the world of matter, and sought to save himself from excess of feeling by unrestrained devotion to science. Not that he cared, then or ever, for attaining results of objective validity. All he aimed at was to free himself from what he regarded as limits and prejudices; and he fell into the error, from which he never escaped, of imagining that this was the same thing as a positive contribution to the treasures of knowledge. Self-emancipation became a standard according to which he measured culture, with the strange result that we find him, in his last period, regarding that identity of ego and will on which his whole philosophy was based, as a *Volksurteil* to be got rid of, and his very self a prejudice he must cast aside.

Prof. Drews' criticism of Nietzsche is an effort to demonstrate the futility of all constructive philosophy based on the assumed identity of consciousness and being, and is thus in itself an attack on the whole development of modern philosophy due to Descartes. In particular, he regards Nietzsche as the *enfant terrible* of Kantian epistemology. There can, he considers, be no doubt that Kant, despite his vague acknowledgment of the *Bewusstsein überhaupt*, conceived the subject of knowledge as the individual consciousness, and gave no guarantee that reason might not be the product of subjective choice; so that Nietzsche only went farther in the same direction when he denied the objective significance of reason altogether. All truth, he declared, was a more or less useful fiction: *der Philosoph findet die Wahrheit nicht, sondern er erfindet sie.* The function of this new kind of philosopher was to dominate existence by putting a fresh fiction in place of one worn threadbare, and recreate reality in accordance with his own will: the Will to Truth is the Will to Might. Here comes in the influence of Schopenhauer, whose direct successor Nietzsche is. He accepts Schopenhauer's identification of Being and Will, but conceives the latter not as the absolute, but as the individual will, and, under the influence of Positivism, not as a metaphysical, but as an empirical reality. Prof. Drews considers that the belief that we in our own self-consciousness comprehend the Absolute justified Nietzsche in sinking the Absolute in the ego, just as it had Schopenhauer in sinking the ego in the Absolute. It is a matter of logical indifference whether I say, I am not, only the Absolute is, or, the Absolute is nothing beyond me. I am not clear that this is a matter of logical indifference, and I am certain that it is a matter of practical impossibility. Even Nietzsche, although his own ideal of the Übermensch so fascinated him that, under the influence of increasing megalomania, he identified his own personality with it, had, in his sanest moments, the wisdom to abandon its realisation to the future, from the clear consciousness that the ego is not absolute. Prof. Drews writes as a fervent disciple of Von Hartmann, but it is no business of mine to combat his philosophical beliefs, since these do not affect the fairness and reasonableness of his estimate of Nietzsche.

He finds the kernel of Nietzsche's philosophy in the effort on the ground of analogical, individual, empirical Will-principle, not only to explain, but actually to fashion the world, while bestowing on the ego freedom and independence. Naturally the effort was a failure. Freedom and culture are not possible on the basis of the individual self. Nietzsche's effort to achieve a purely autonomous morality resulted against his will in the overthrow of all morality whatsoever. Abandoning himself to the guidance of the irrational, blind will, Nietzsche's standpoint became pre-moral, sub-human. Nietzsche accepted this result with the unearthly hilarity of insanity, but he had another goal in view when he began his weary journey. He had aimed, by a release of its creative power, at present dammed up by historical and conventional restraints, to raise mankind to a higher stage of existence. Salvation, grasped by Schopenhauer in a mystical and religious sense, appeared to Nietzsche as the problem of culture. The world of appearance from which the individual had to return to himself, was the modern world of culture. But, practically making himself absolute, Nietzsche broke down every relation between himself and other persons, raised himself above the regimen of reason, deprived himself for ever of the possibility of indicating any goal towards which culture ought to strive, and saw himself compelled to regard the irrational, individual will as its own end. Seeking a deeper significance for things than Positivism had given him, Nietzsche found it in his doctrine of the *ewige Wiederkunft des Gleichen*, a crazy effort to impress the image of eternity on our empirical existence, which had not even the merit of originality.

In his treatment of Nietzsche, Prof. Drews is in substantial agreement with Prof. Ziegler, a guarantee of soundness. Of course he has shed fresh light here and there, for instance, regarding the influence upon Nietzsche of the French writer Gobineau. It is a pity that he has not gone somewhat more into detail regarding Nietzsche's criticism of social and political theories, and abridged the disquisition upon the demerits of Christianity into which his consideration of the *Antichrist* may be said to degenerate. With much he says it is possible to agree, but I cannot conceive it to be true that Christianity rests so entirely on its historical basis. When Dr. Drews endeavours to minimise Nietzsche's dislike for his countrymen, and even to connect his insanity with the cropping up of a lower Polish stratum through his sound and healthy German culture, I applaud his patriotism but not his success.

There is a great deal of human interest about Nietzsche, and a great deal of interest for specialists. Dr. Drews makes the shrewd remark that the Zarathustra is perhaps the most interesting book psychologically considered that exists. Nietzsche's brilliance and originality, his appeal to the free creative spirit must continue to exercise their fascination; and it would be idle to pretend that he never touches a fatally weak spot in our culture. Again, in his

doctrine of the Übermensch, he seems to have said something that people cannot forget. Nor is this to be wondered at. The doctrine has a justification of a kind in scientific and religious thought. It does not seem *prima facie* absurd to turn the explanatory and heuristic principles of Darwinism into prophecies, and religion claims to initiate mankind to a higher stage of development, not always postponed to a *Jenseits*. Nietzsche's philosophy as a system goes to pieces easily enough; but it leaves us with something more than a heap of rubbish.

DAVID MORRISON.

The Groundwork of Psychology. By G. F. STOUT, M.A., LL.D., etc. University Tutorial Press, 1903. Pp. iv, 239.

IN the Preface to his *Analytic Psychology* Dr. Stout explained his view of the utility of a book on Psychology in general to special investigators; and compared it to the guidance which an inland explorer of a large island may receive from a chart of the coast. In the present work he has once more charted our island for us, this time on a somewhat smaller scale, and with a few changes in nomenclature, but on the whole without important alterations in the outline before laid down. The great merit of the "Groundwork" as of its predecessors lies in the quiet certainty of the workmanship and the clearness of statement which arise from a firm grasp of the subject; the author is not engaged in chasing ideas and feelings about in his own mind and dragging them out to view in a more or less mangled condition—a process to which the amateur psychologist is reduced; but he is exhibiting the outline and structure and life of the mental island in such a way that even the amateur may recognise it as his island also, and enter into intelligent possession of his kingdom.

Perhaps the most marked change in the book is in the definite adoption of a twofold division of the "modes of being conscious of an object" into Cognition and Interest, and of these two again into Simple Apprehension and Judgment on the one hand, and Conation and Feeling-Attitude on the other. Some such classification is no doubt needed for the convenience of working, and must justify itself by the extent to which it facilitates study; but except in a very technical sense there seems something paradoxical in opposing Interest to Cognition.

Another change is of a more general nature, and is to be found, I think, in the tendency to be more descriptive and less explanatory than in the *Analytic Psychology*. I miss the illuminating conceptions of Noetic Synthesis and Apperception; and though they may be partly found again as Ideal Construction, Implicit Revivals, and Associated Dispositions, they seem to have lost something of their virtue under these new forms. One result of

the change is perhaps mainly apparent; but it does seem to throw more weight upon merely linear association, and less upon the reinstatement of psychical states as wholes; more upon contiguity and less upon context. It is probably the somewhat revolting experiments by Prof. Ebbinghaus which have tended to emphasise mere linear associations; but even if we are to accept such forced and unnatural experiments (for the mind cannot be said to work naturally when engaged in processes so alien to the nature of mind), still context will explain more than contiguity; as in the striking result that repetitions more or less immediately following one another yield less enduring associations than those which are separated by considerable intervals of time (p. 66). A fact is always more impressive for being presented in different contexts; and so far as contiguity of the repetitions in time means identical context, it would militate against what little impressiveness the association might have acquired.

It is a real satisfaction to find Dr. Stout authoritatively assigning a duly subordinate place to Imitation as compared with Response in mental development. The undue weight attached to the former element by French and American writers is partly no doubt the emphasis which always attaches to the discovery of an extended application of a conception, but partly also it appeals to national characteristics which are hardly English. It is of great importance in the development of self-consciousness and intersubjective intercourse (see chap. xiv.) both which factor actually plays the most important *rôle* and which is emphasised by the sociologist; and it is certain that in a British community intelligent co-operation and organised response are far more operative than in either France or America.

There is one other point at issue between English and American psychologists on which Dr. Stout gives a decided opinion; and that is as to the nature of Emotion. He refuses to accept Prof. James's theory that an emotion is not the immediate reaction upon psychical excitement, but merely the result of the organic disturbance arising out of that excitement, and points out that upon such a theory we should have no psychical counterpart to the primary excitement.

For detailed treatment of the emotions the reader is handed over to Mr. Shand, who has written chapter xvi. on "The Sources of Tender Emotion" to illustrate a method by which we may derive secondary and more complicated emotions from primary. It is a little difficult to adapt oneself to the changed atmosphere of this chapter; and still more difficult to reduce it to equivalent terms with the rest of the book. We feel that our island has suddenly become a different sort of place, and we fail to find our way about it. It is very beautiful and appeals strongly to whatever of poetic sentiment there is in us; we suspect that if we do not feel like this, yet this is what we ought to feel like. But it lacks reality. Take first the treatment of sympathy, which illustrates

curiously the fallacy of the imitation theory. Sympathy according to Mr. Shand is the mere echo in number 2 of the feeling or mood of number 1; if 1 is gloomy 2 becomes gloomy also, if 1 is angry 2 repeats his anger; "it is mere echo, reflexion or copy". But when sympathy is reduced to this it ceases to be sympathy, it is apt indeed to be its very opposite. The person who always chooses the time when I want to be ill-used and depressed to be ill-used and depressed herself, or seizes the opportunity of my domestic woes to reinstate her own, is of all companions the most unsympathetic. True, the *possibility* of sympathy lies in her knowledge of how I feel; but if that knowledge is to become sympathy it must cease to be echo and become response. Repetition without response is only aggravation. Petruchio could hardly be called a sympathetic husband. Even the illustration of the orator and his audience will not hold on the merely imitative interpretation; his attitude is one of appeal, and if there is to be sympathy between him and his audience theirs must be one of response; he pleads "You do see that this is wrong and cowardly," and they respond "Yes, we do".

It is partly due to this treatment of sympathy as mere echo that Mr. Shand finds it necessary to offer a theory of the origin of the "tender emotions" which seems sometimes—only sometimes—a little strained in its application. All tenderness, he says, combines both joy and sorrow; it is indeed the characteristic emotion emerging from mingled joy and sorrow in an object, and in all the tender emotions we may trace some element of each. In working out his theory in detail Mr. Shand handles his subject very beautifully, even tenderly; but it does not seem possible to accept his analysis in quite all cases, notably Gratitude and Reverence. To take the latter only: "greatness and mystery alone evoke reverence, but only in union with goodness. And goodness is apt to inspire pity when we think of the common fate which attends it"; how can we apply this analysis to the reverence felt, for instance, for the Divine Being, the typical case of reverence?

H. BOSANQUET.

VII.—NEW BOOKS.

The Categories. By JAMES HUTCHISON STIRLING, LL.D., etc. Edinburgh: Oliver and Boyd. Pp. 158.

'THIS whole little book,' says Dr. Stirling (p. 147), 'I really regard as no more than as something of an appendix to my preceding volume. If then I have given it the title of *The Categories*, it is only because I regard these in the main to function all through it.' The 'preceding volume' referred to is that entitled 'What *is* Thought?' which appeared in 1900. An appendix the present volume may be; but the reader will probably look upon it as a summary statement of the Secret of Hegel, and of the value of his principle for philosophy and religion. That Secret, as Dr. Stirling repeatedly points out, is the concrete Ego with its twofold function of uniting difference and differentiating unity, a double process made possible by its being essentially consciousness of self. The ways in which it expresses this process specifically are the Categories, which are just various ways of uniting difference in experience, and are determinate functions of the single Ego whose nature they express. The Ego is thus the supreme unity in difference when we are dealing with concrete reality, the subject-object relation which constitutes spiritual experience; it is *the* notion.

Dr. Stirling, with that fertility of resource which is all his own, brings light to bear on this main idea from various quarters. After a short chapter on "The Categories Generally," chapter ii. is devoted to what he calls the "Double Statement" of Hegel's philosophy. This is concerned with Hegel's earlier writings and their relation, especially in the case of the *Phänomenologie des Geistes*, to what we regard as the systematic development of his system; and is one of the most interesting portions of the volume. Chapter iii. takes up the "Categories and Physics," where we have some pithy criticism of the ideas of beginning and end with their relevant conceptions of time and causation, as these are employed in physics and biology. Here Dr. Stirling summarises arguments in his Gifford Lectures, and *Darwinism*. Chapter iv. discusses "Religion and the Categories," in connexion with *Aufklärung* in its various forms, and furnishes some very weighty sentences on Hegel's relation to Christianity. Even religion cannot dispense with the categories. They are the medium of communion of Spirit with Spirit. The Spirit is "The single breath of the co-integrated mass of the co-integrating categories, self-evolved self-involved—consciousness, self-consciousness, the concrete ego, as *in* the Ego, and *from* the Ego that is the Infinite, the Living Universal, the absolute I Am: God" (p. 133). The concluding chapter deals in a general way with the categories as in Kant and Hegel.

There is little call for remark, least of all of a controversial kind, on this delightful and characteristic volume of the greatest living exponent of Hegel. One regrets that at times (*v.* pp. 41, 127) Dr. Stirling should make an accusation of unintelligibility against Hegel that hardly seems

warranted by a scrutiny of the general context of the passages referred to. And in one part of his argument indeed it seems not quite possible to follow his lead. He seeks in the second chapter on the 'Double Statement' to make out that the *Phänomenologie* (1) is not an introduction to the system; (2) was not regarded by Hegel later on as an integral part of his system, its original title as 'First Part of System of Science' having been dropped, and the whole matter of philosophy recast in the *Logic* and *Encyclopædia*, more especially in the former; (3) was made a part of the *Philosophy of Mind* and the whole substance of the original volume thus compressed into a few pages and paragraphs of the *Encyclopædia*.

On (1) one can merely remark that if introduction means the best starting-point for understanding the system as a whole, it is not possible to dispute or assert Dr. Stirling's position. Everything depends on the person who is to be 'introduced' to the system. If it means, however, the philosophical justification of the system, meeting the ordinary mind half-way and leading him up to the peculiar position of absolute objective Idealism, then that is surely what is at least part of the aim of the *Phänomenologie*. Hegel's own statements in the Preface bear this out.

As to (2) it is quite sufficient answer to state that the *Phänomenologie des Geistes* was being revised by Hegel for a new edition during the few weeks before his death, *i.e.*, some twenty-five years after its first publication and after all the elaborate treatises of the system had been expounded either in lectures or otherwise. This is unintelligible if even the point of view of the *Phänomenologie* had been given up in any sense. That he expressly dropped the sub-title is true: but it is quite explicable if we merely suppose that his original idea of the range of his system changed —which has nothing to do with the value of any particular portion of the system. It merely affects the arrangement of the books. Hegel came to look on each treatise as complete in itself. Thus the *Logic* is a special development of a special point of view, just as is the case with the *Philosophy of Religion*.

Regarding (3) it does not prove change of front. The *Philosophy of Mind* covers all phases of mind-life from its lowest soul-life up to Art and Religion. The *Phänomenologie* deals with one stage of mind-life, and therefore its point of view finds a place in the general development of mind as a whole. But it does deal with that stage, and when worked out it becomes the elaborate treatise we know. If then the mere recurrence of *Phänomenologie* in *Philosophy of Mind* implies abandonment of the original treatise, we should have to argue in the same way that Hegel's view changed when he afterwards discussed the State in a separate volume, *Philosophy of Law*, or religion in *Philosophy of Religion*, or when he proposed to undertake a comprehensive discussion of Psychology, which we learn in the introduction to the *Philosophy of Law* he intended to do.

There is a slight slip on p. 71: 'Mangel an Vorarbeitern' should be 'Mangel an Vorarbeiten' (*v. Logik*, Vorrede, *W.W.*, iii., p. 6).

J. B. Baillie.

Education as Adjustment: Educational Theory Viewed in the Light of Contemporary Thought. By Prof. O'Shea, University of Wisconsin. Longmans, Green & Co.

This readable and well-arranged book is an honest attempt within a moderate space to build up a structure of educational theory upon a

scientific basis. Its special merit is the admirable manner in which it "organises and interprets data derived from different fields of investigation". The fundamental idea was promulgated forty years ago by Wallace and Darwin, and has been since then incidentally adopted by many writers on evolution and psychology. Prof. Stout, for example, has spoken of the child's perceptual education as involving "only direct adjustments in the way of bodily movements to things and situations actually present to the senses," and has shown that "as the child grows older ideal anticipation of the future and recall of the past largely take the place of direct adaptation to circumstances". Baldwin has written that the largest part of a child's energies is expended in getting adapted to his social environment, and Butler in *The Meaning of Education* refers to two main educational periods—the period of physical adjustment, and the period of adjustment to spiritual environment. Still no book, as far as the present writer knows, has set itself so methodically to expand the idea, and apply it in a practical way to the work of the teacher and the school.

The chief part of a man's environment is the society of his fellows, and hence Education must "seek to develop social action". Prof. O'Shea therefore is right in holding that "the educationist must summon to his aid every science which is concerned with the investigation of human nature, and he must strive to interpret phenomena which are yet unexplained in the light of principles presented in biology, in psychology, in evolution, in neurology, in ethics and in sociology".

The greatest need in education he considers to be the development of the scientific temper among teachers. He would have the teacher a naturalist of a high type who can look upon the children before him as inheritors of the accumulated racial experience in the effort to get adjusted to environment, and as struggling incessantly on their own part to learn the world and adapt it to themselves, and who can in addition work his way through some of the detailed processes which are involved in the attainment of this end. He would have the teacher recognise that mind is "a reacting mechanism," "a functioning organ," "a medium for the securing of adjustment," and be acquainted with the manner of its response to environing influences, and with the effects of particular studies and different modes of presenting them, and the purpose and method of discipline in the school.

After an interesting *résumé* of the data for a science of Education, and a criticism of the common views of the aim of Education, the author discusses Adjustment as a process of recreating environments, and shows how it is affected by social organisation. "Differences in capacity will manifest themselves mainly in respect of the degree to which individuals can adapt themselves to complex environments." Referring to the tendency in the public schools towards the suppression of the exceptional individual, keeping him down to the level of mediocrity, Prof. O'Shea strongly insists that every pupil should be given an opportunity to achieve the most he can in any direction, and that schools must be organised to minister to the needs of the able pupil as well as of his less fortunate fellows. "To fail to do this is a crime alike against the individual and against society," for society depends largely upon the conservation of the strong.

There is an excellent chapter on the general effect of adjustment on teaching. The educationist must arrange the world for the individual so that he will be brought into correspondence with it in a "certain definite, orderly manner, working in a progressive way" from simple things to closely related and ever more complex things.

The third part of the book deals with the method of attaining adjustment, and is therefore of greatest practical value. Learning in the first stage is "organisation of sense impressions the better to guide reaction," "ascertaining how to conduct one's self toward things". This confers upon the child the power to adapt himself to individual things in the world. The percept is "a complex which in any individual case is constantly changing with increased experience". But while the child is learning the individual he is simultaneously learning the group to which it belongs.

The general idea or concept in its function in adjustment "is a definitely established mode of reacting upon an oft-repeated situation".

The chapters on certain typical senses, the retention and abridgment of experience, the function of conventional language, and on apperception as the essential process give a direct educational application to some of the most recent results of psychological investigation.

The doctrine of Formal Discipline is fully discussed and criticised. On this subject the author's position will not be generally accepted by educationists in this country, although it is in accordance with the trend of opinion and practice in America. "Nothing for mere formal discipline." "The educationist will not put subjects in the curriculum that are designed merely to discipline the mind by formal exercise." "He must cause the individual to react in the school in the ways in which he must act outside." "Good method is simply the attitude of the organism which is most favourable for adjusting itself effectively to a situation."

Such views as these go right in the teeth of the orthodox beliefs of our schools and colleges. Prof. O'Shea has brought many arguments in support of them. These will set many thinking, but will probably convert few.

The book is a valuable contribution to the literature of Education, and should find many readers even outside the teaching profession.

JOHN EDGAR.

What is Meaning? Studies in the Development of Significance. V. WELBY. London: Macmillan & Co. Pp. xxxi, 321.

The studies in this interesting book gather around the use and abuse of language. The author assails the carelessness with which we employ such means of expression as we have, and the conventions which prohibit attempts to discover more fitting, suggestive and economical modes of writing and speaking. Language is a most precious portion of our inheritance; and it should be the conscious aim of every one to hand it on richer and more precise. Until the whole people is filled with this idea, the present reign of confusion and fallacy must continue, stunting the faculties of the young and leaving the old powerless to declare their deeper feelings. "Expression must overtake the thinker and poet, if they are to open new worlds of truth and beauty."

Not the least fruitful source of error is the use of analogies and metaphors, representing an unscientific view of the world, especially when it is doubtful whether these figures are used as arguments or as literary embellishments. All such figures, however, must be discarded; new metaphors and analogies should be drawn from the best science of the day. Our language should always reflect the fullest and most accurate knowledge we possess. Not only shall we in this way escape much confusion, and the tiresome attempts to unravel verbal fallacies;

but language itself will lead on to the suggestion of further truths.[1] The idea, that there is latent even in language as we have it the promise of much knowledge, is constantly present to the author. Our words signify more than we mean. Man is always greater than he knows.

This conception governs Lady Welby's remarks about Education and Primitive Religion. She attacks the cramping and artificial methods which have so long controlled the schools; and insists that the aim of the teacher is to elicit knowledge, and stimulate the natural interest the child takes in learning. What is said on this subject in the studies, and illustrated in several notes and particularly in a dialogue in the appendix, appears to us specially good and suggestive. As regards Religion, the attempts to explain the elaborate rites and strange beliefs of the primitive mind by dreams and odd occurrences are rejected or at any rate relegated to a secondary place. These cults are expressions of a genuine passion for the eternal and unseen, of an organic response to appeals from the Divine Nature. Hence what seems most grotesque is absurd only in a superficial and relative sense.

Much emphasis is laid throughout this book on the distinction of sense, meaning and significance. These words, often regarded as synonyms, are used to indicate the different stages of development in expressiveness. We cannot pretend to understand the author completely on this point. But the distinction appears to be the following. Meaning belongs to the sphere of deliberate will; the meaning of a word or phrase is the purport it is intended to convey. Below meaning in the scale of expression stands sense. Sense does not explicitly involve the conception of purpose at all. A thing has sense, if it stands as a sign of something for me, whether or not it has received its character as a sign from the will of any one else. Significance, on the other hand, stands above meaning. A thing is significant in so far as it is part of a system, and is therefore involved in all manner of relations beyond those which constitute its intention or meaning. The line between sense and significance is hard to draw. Indeed it labours under the same difficulties as the distinction between denotation and connotation. But perhaps we may say that in the one case we are referring to the more immediate, and in the other to the wider and more remote relations of a thing.

The majority of readers will probably find this book somewhat fanciful in parts, and also obscure in respect of the argument. But they will also find many penetrating criticisms on our use of words and analogies, and on education, an interesting selection of quotations in the notes and appendices, and throughout much that is both stimulating and suggestive.

A. J. Jenkinson.

The Philosophy of Education. By Herman Harrell Horne, Ph.D., Dartmouth College. The Macmillan Company, 1904.

Starting from the nature of man as seen in the light of biology, physiology, social science, psychology and philosophy, the author of this volume sets himself to evolve a definition of Education which will cover all the complicated facts. "Teaching to-day," as he says, "is passing from the empirical, the experimental, the customary, to the rational and the scientific as its basis." He has here attempted with some

[1] An interesting example of this is given in chap. xvii., which contains the 'translation' of part of Dr. Jackson's lectures on the Nervous System.

measure of success to show how the principles of Education are founded on the related natural and mental sciences—what he calls "the essential sciences of man". The book is "not another manual of practice, but an interpretation,"—in fact there is very little discussion of the methods of 'teaching' in its restricted sense. It will be none the less useful on that account, for such a survey of the land has been needed, and should be of undoubted value to those who would enter in to possess it.

Throughout it is not difficult to trace the influence of James, Royce, Baldwin and other recent writers, but it is no discredit to have been influenced by these masters, and the book is not unworthy of their teaching. Dr. Horne has in its pages not only given a lucid exposition of the various aspects of his subject, beginning with the biological and ending with the philosophical, but he has shown that there is a "large and systematic unity" throughout.

The chapters on the sociological aspect of Education are specially valuable because of their interpretation and analysis of the spiritual and social environment of the pupil.

"Education is evolution which has become conscious of itself." "In the last analysis the school is society shaping itself to its future ends." As "life is the great fundamental fact" the author begins with a simple biological definition: "Education is the superior adjustment of a human being to his environment". But this definition he gradually enlarges as he considers the fresh light which the other sciences cast upon the nature of man. In the last section of the book he deals with the philosophic aspect of his subject, and supports the thesis that the environment of man is God. He is now able to formulate his final and somewhat elaborate definition: "Education is the eternal process of superior adjustment of the physically and mentally developed, free, conscious, human being to God, as manifested in the intellectual, emotional and volitional environment of man".

In Science man's intellect reaches the thought of God in the world; in Art man's emotions come into touch with the feeling of God in the world, and "Volition, as expressed through the will of man, is the plan of God in the world".

A student at the threshold of the study of Education will find in the volume the stimulus and suggestiveness of a wide outlook.

JOHN EDGAR.

A Study of British Genius. By HAVELOCK ELLIS. London: Hurst & Blackett, 1904. Pp. 300.

This book contains an attempt to illustrate "by a single concrete example of the first importance—the genius of Great Britain—many of the special characteristics of genius generally," as well as to classify and localise the various types of genius found in these isles. The latter part of this undertaking (which is, however, dealt with first in the book) strikes one as being not altogether sound. The author accepts a great many precarious conclusions from recent writers on British ethnology. One distrusts a good deal of this talk about Brythonic wedges among a Goidelic population, and so on. In one case we find a sheer mistake—the old-fashioned prejudice that "the lowland Scotch are almost identical in racial composition with the northern English". If the writer had said that the people of the south-eastern counties and an important section of the inhabitants of the burghs were originally identical in race with the northern English, his statement would have been unexception-

able. Again, the way in which Mr. Ellis proceeds to generalise about the psychological characters of his three foci of English genius, *viz.*, the East Anglian, the south-western and that of the Welsh border, seems very risky, while when he descends to estimate the relative genius-producing powers of publicans and tea-merchants his results are rather trifling. In spite of all Mr. Ellis's efforts to obtain full and accurate data and to eliminate sources of error, it must be confessed that we have not sufficient knowledge to enable us to carry on this minute work and pit one county against another and one subsection of the population against the next. All that we can say seems to be that genius is in proportion to the civilisation of the class or society amid which it is found; but this civilisation must not be estimated by purely material standards. Otherwise Scotland would have to be the wealthiest part of the country.

Much more important are the statistics referring to heredity and parentage, health, fertility and duration of life. Most important of all are the results touching the pathology of genius. The extraordinary frequency of the association between outstanding ability and gout seems to point to the nervous character of the disease. The connexion between gout and genius may "be in part due to a tendency of some of the gout-producing influences to be identical with some of the genius-producing influences". Among the latter the author instances the late age of the parents. He regards genius neither as a neurosis (*i.e.*, akin to insanity) nor as a strictly normal variation, but as due to a morbid neurotic strain acting as a "fermentative element" on a robust and vigorous constitution. The insanity which frequently accompanies genius is not the cause but the Nemesis of genius. "The real affinity of genius is with congenital imbecility rather than with insanity." "By means of the *idiots savants*, the wonderful calculators, . . . we may bridge the gulf that divides idiocy from genius."

G. R. T. Ross.

The Ethics of Work and Wealth. By D. C. Banks. William Blackwood, 1904. Pp. 328.

It is characteristic of the wider interpretation of economics that there seems to be a tendency to depart from the rigorously non-moral attitude of the "classical school". Certain conceptions that the economist must use are borrowed (formerly without acknowledgment) from the moral philosopher, and there is room for a treatise that would expound the points of contact. This may or may not be the purpose of the *Ethics of Work and Wealth*, but it is one that, if designed, has not been realised. The effect of the book is rather to re-think economic statements from the point of view of *Sittlichkeit* rather than *Moralität*. This is done with clearness, a style that is almost too epigrammatic, many interesting allusions to and quotations from standard literature, and in a manner that is often suggestive. The book too is up to date, for it deals with the fiscal question and even Chinese labour! That the latter are considered from the "ethical" point of view is characteristic. But after all the "Ethics" are those of "popular philosophy," and comprise a strange blending of Butler, Spencer and the *obiter dicta* of the unco guid. This eclecticism limits the usefulness of the very suggestive discussion of the Law of Marginal Utility. The criticism of use value seems to turn on the confusion of the object of desire and pleasure (which also appears in some of the articles in the *Dictionary of Political Economy*). There is much of practical interest in the book, as, for instance, the discussion of the moral effect of the stock exchange. Curiously enough the stock exchange is

supposed to be wholly given over to speculation—the citation of 6s. shares (nominal) suggests certain mining ventures that would fall within this category. There is one very curious passage in the book which bears indirectly on that modern King Charles's Head—the fiscal question. The page describing the letter sent by Edward VI. with Willoughby's expedition in 1553 is headed "Edward VI. on Free Trade". This voyage was the foundation of the Russia Company, which for many years possessed (and tried to maintain) not only the monopoly of trade to and from Russia against other Englishmen, but against the rest of Europe.

W. R. SCOTT.

Biographic Clinics (II.). By G. M. GOULD. Philadelphia: P. Blakiston's, Son & Co., 1904. Pp. xiii, 392. Price, $1.00.

The first instalment of these *Clinics* was reviewed in MIND, xiii., 130 f. The author there dealt with the ill-health of De Quincey, Carlyle, Darwin, Huxley and Browning, as conditioned upon 'eye strain'. The present series discusses the maladies of George Eliot, George Henry Lewes, Wagner, Parkman, Jane Welch Carlyle, Spencer, Whittier, Margaret Fuller Ossoli and Nietzsche. The reception of the first volume by the leading medical journals was, we are told, neither flattering nor encouraging. However that may be, the present reviewer must confess that the favourable impression which he received from the earlier volume has been deepened by his reading of the second. So far as a layman can judge, there seems to be no doubt that Dr. Gould has laid his hand upon a *vera causa* in the etiology of affections that—be it remembered—are by no means confined to men of genius, but are widespread through the general public. No one can read Spencer's *Autobiography* without finding confirmation piled on confirmation of Dr. Gould's theses.

E. B. T.

L'Idée de Relation: Essai de Critique Positive. Par GUSTAVE RODRIGUES. Paris, 1904. Pp. 347.

"*La raison pure est la dernière idole élevée par l'homme à sa propre glorification*" (p. 88), let us, therefore, bring about its fall by submitting the doctrine of its high-priest Kant to a criticism of unprecedented severity (p. 45). With Kant the cloud of metaphysical vapour passes for ever from our understanding, and we see Experience singly and we see it whole as phenomenon bound to phenomenon by means of phenomenon, as the automatic organisation and the spontaneous equilibrium of sensible appearances sufficing to themselves and seeking no support either in spirit or noumenon (p. 342). The affirmation of the universal and necessary, the postulate of intelligibility, was only the first formula of an egoistic ideal seeking to impose itself on the facts. Pure reason is the offspring of moral prejudice, and must be got rid of in the interests of morality itself. After all this it is a little disappointing to read the old familiar story of Kant's formalism and dualism. If Metaphysics could be demolished along with Kant it behoved M. Rodrigues to show, for example, that Hegel is not a metaphysician, or that his essentially antagonistic and negative attitude towards Kant was an impossible one. Admitting at once that M. Rodrigues gets some very healthy exercise out of his Kantian punching-bag, and that his blows would be terrific if they hit anything living, I should like to look at what I take to be his

main contention. It is that, "*L'intelligibilité des choses ne permet pas leur réalité, elle en résulte*" (p. 231). Morality and Science, he assures us, represent attempts at unification which will succeed at some points and fail at others, because things are not necessarily intelligible or otherwise, that is all as it turns out: Truth does not exist, only truths successive and sometimes contradictory. Now, does the frank acceptance of the infinite variety and complexity of the world, the makeshift nature of many hypotheses necessitate the rejection of the belief that reality may ultimately form one rational system? The author tells us that, "*L'ordre se fait automatiquement parce que le désordre est la négation de toute existence et de toute possibilité, parce qu'il exprime l'impuissance de l'adaptation*" (p. 232). Well, surely the idea of a kind of mechanical adjustment of phenomena to one another points to an ultimate system, if of a low order of intelligibility. "*Pour que quelque chose fût, quelle infinité de choses qui ne pouvaient pas être,*" says M. Rodrigues, and it naturally occurs to you to ask him why his universe should exhibit any preference at all for any particular set of phenomena. That the "*habitudes des phénomènes*" were originally only fortunate accidents is simply to say that they are manifestations of a more or less successful adaptation to an underlying system, and their degree of permanence does not affect the general principle of causation which M. Rodrigues so unwarrantably classes among them. He defends phenomenal freedom, it is true, but not quite to the extent of imagining that things happen anyhow, he is only anxious to insist that, if the development of experience is regulated (which we cannot know *à priori*), it is by itself and not by us (p. 260). But why should the regulation of experience be so alien to the reason of man that the latter should be likened to a cuckoo's egg? Surely this is to fall into an odd inversion of the abhorred Kantian dualism, and indeed he directly contradicts any such assumption where he says, "*La raison, c'est le monde intelligible au monde*" (p. 286).

The object pursued, at least in the negative part of the essay, is to resolve the idea of reason into the idea of relation, which, instead of being derived from it, establishes it (p. 32). This being so, how M. Rodrigues can talk of "experience purified from every rational element and reduced to the relations composing it" (p. 263), I do not pretend to understand. Relation is the unity of a duality, schematically expressed by the form, a thing is another thing, A is B. Identity itself is only cognisable if it contradicts itself ideally, if the being which it posits opposes itself. But, on the other hand, heterogeneity only develops itself under the form of homogeneity. Relation is neither identity nor difference, but implies both, it is identity in difference and difference in identity. All this has a very familiar sound, but it is not meant in the bad, old, metaphysical way. The idea must resolve itself into images or it would represent nothing for us. Identity and Contradiction are the two aspects of the fundamental phenomenon-relation. Hence their universality, which is empirical and not logical, and their absolutely indissoluble solidarity. M. Rodrigues has made the discovery that, "*L'espace vidé de l'objet est la matière logique. comme il est la matière mathématique*" (p. 182). Thus the principle of Identity becomes, A space only contains itself; that of Contradiction, A space does not contain other spaces. In answer to the very obvious objection that we affirm non-spatial notions of qualities and purely internal states to be identical which cannot possibly be translated into extension, M. Rodrigues denies that sensation and feeling in themselves are subjected to the law of Identity, "*La différence entre le conçu et le senti, c'est que ce dernier ne peut jamais être identifié*" (p. 180). Psycho-

logically, of course, the strict principle of Identity can be realised only to a certain extent, but whence could thought derive its standard if that is not operative, however imperfectly, at all stages of intellectual life? And how, on M. Rodrigues' own view that space is the minimum phenomenon, can it be absent from sensation and feeling? Is he not giving to space a Kantian power of elaboration? But, then, why ask these questions, since the Positivist is that being for whom there are no problems and there are no solutions (p. 155). If that had not been so, I might have timidly ventured to ask M. Rodrigues how he explains, "*Ce besoin d'unité absolue indéfiniment poursuivie par la pensée*"; how, from the mere fact that it has become a form of our consciousness and our brain, error can not only be converted into truth, but become ever the truer the more the error is aggravated, as he says is the case with Duty (p. 164); how he can enunciate the principle that, "*la moralité est le propre de qui n'accepte pas la nature, mais la fait*" (p. 150), and yet inveigh against faith because it is a defiance hurled by man against the nature which dominates him (p. 337)?

M. Rodrigues has written an exceedingly full book, and, although I have confined myself here to finding fault with it, there were times when I found myself on the whole in sympathy with the writer, as in his discussion of freedom, and at all times I recognised his sincerity and ability.

DAVID MORRISON.

Spinoza und Schleiermacher. Die Kritische Lösung des von Spinoza hinterlassenen Problems. Von Dr. THEODOR CAMERER. Stuttgart und Berlin, 1903. Pp. 179.

The author of this essay is already well, and favourably, known to students of Spinoza by his previous book on Spinoza's teaching. The present work will enhance his reputation for patient and scholarly investigation. But the results to which he has come, and the collocation of passages through which he has reached them, will undoubtedly prove of much value in the attainment of a sound interpretation of the principles of the system.

The author begins by pointing out that Spinoza's philosophy is vexed by contradictions which cannot, in the form in which the system has been left, be really reconciled. Principles are set down alongside one another, each of them essential to the system, and each logically worked out, which are at the same time mutually contradictory. Dr. Camerer believes that the *lacunæ* and the contradictory elements which criticism reveals are so much a part of the system that they cannot be removed without destroying its essential character. To get rid of its defects by eliminating or changing some of its elements would also destroy the system itself. This thesis is worked out by showing in great detail the difficulties in Spinoza's conception of God, the central idea of his system. And the conclusion is drawn, that only when the transcendental character which the absolute has in Spinoza's thought, is clearly recognised, and the transcendental unity of opposites in the absolute is shown, will Spinoza's system find its critical completion. And such a completion Camerer believes Spinoza has found in Schleiermacher's system as based upon the absolute identity of opposites.

The detailed character of the discussion on the two steps of the argument makes it impossible to summarise it or to attempt to estimate its cogency. There are some aspects of it however which, in my judgment,

need strengthening. (1) The author seems to me to rely unduly upon the exposition of Spinoza's thought which is to be found in the *Short Treatise*. Interesting and valuable as this Treatise is in casting light upon the development of the Spinozistic system, it cannot be founded upon as an adequate expression of its author's mature opinions. It is strongly tinged with Cartesian and Scholastic phrases and modes of thought, and it displays all the self-contradictoriness and fragmentariness of tentative thinking. On no point can it be fairly taken as indicating the writer's final judgment. (2) I am not disposed to think that the method of bringing together and contrasting the various passages in which Spinoza makes use of the terms, Substance, Attribute, Mode, *Intellectus Dei*, etc., is calculated to cast most light upon his system. The results to be reached in this way are probably more verbal than real. For there is no more reason for estimating Spinoza's study of human life by the definitions which a few abstract terms receive from him than for limiting Euclid's contribution to the study of the properties of space to the few barren definitions with which his treatise opens. (3) The two parts of Dr. Camerer's treatise are but loosely coherent. Schleiermacher's principle of absolute unity may be the logical completion of Spinozism, and the transcendental unity of opposites may be the natural apotheosis of a substance which expresses itself in infinite attributes, but this conclusion demands a much more thorough proof than is here given. In spite of what the author says, it may be maintained that Spinoza's system can be better corrected from within than from without, and that its real difficulties are no greater than are to be found in any other serious effort to unify the different phases of human experience.

R. A. Duff.

Grundzüge der allgemeinen Ästhetik. Von Dr. Stephan Witasek. Leipzig, 1904. Pp. 402.

This book is avowedly rather a description of æsthetic facts and experiences than an attempt at their scientific explanation, but, since the author considers the method of empirical investigation of psychological data the only one permissible from the nature of the problem, and quite adequate to disprove much that was regarded as profound wisdom in previous æsthetics, it is to be regretted that its utility should, in his hands at least, remain so entirely negative. Thus all previous attempts to explain æsthetic pleasure, from Hegel's appearance of the Idea—at which Dr. Witasek pokes fun—down to Lipps' enrichment of the life of the soul, are to be rejected because they introduce the feeling of value, and he considers himself to have shown that æsthetic pleasure is not due to any feeling of value. This is a hard saying in itself, and I cannot consider the author's effort to exclude thought from the æsthetic attitude completely successful. He has to admit at least the latent influence of the judgment of value in our appreciation of the typical, and he has to allow the great importance for the preadjustment of feeling of the objective elements of any æsthetic presentation. In any case, he has no better explanation to offer that I can find, but contents himself with advising us to prepare an exhaustive repertorium of things favourable to the production of an æsthetic result and see what we can make of it. The æsthetic norm is grounded on normal emotional reaction, and the cultivated taste is standard because it is the product of the crystallisation of the universal subjective conditions.

About two-thirds of the book are devoted to a minute psychological

analysis aiming at laying bare the psychical factors which have a share, great or small, in æsthetic enjoyment, followed by an account of their combination in concrete experience, and all this, although there is debatable matter, is carefully done and extremely interesting. The state of æsthetic appreciation is described as compact of a feeling of pleasure or pain together with the intuition of a presentation in such a manner that the presentation constitutes the psychical pre-requisite of the feeling. In order to become objects of æsthetic appreciation feelings must be made into such presentations, and, while the feeling of æsthetic pleasure itself is always a real feeling, the presentation which it presupposes may be dependent on a judgment of reality, or, as in *Einfühlung*, on a mere assumption. While the æsthetic contemplation of genuine emotions is possible and demonstrable, it calls for an exceptional power of detachment in the spectator. The theory that Art originated in play overlooks the fact that in play the assumptions made awaken feelings which constitute the pleasure of the play, whereas in art these feelings are turned into presentations from the contemplation of which arises æsthetic pleasure. Dr. Witasek discusses the pseudo-æsthetic factors at some length, and is inclined freely to admit the importance of the ethical judgment of value, as is natural in one who finds in the ethical side-issues of art a hint that it may possess biological significance.

DAVID MORRISON.

Der Aufbau der Form beim natürlichen Werden und künstlerischen Schaffen. I. Teil. Ein neues morphologisch-rhythmisches Grundgesetz. Von K. WYNEKEN. Dresden, 1904. Pp. 295.

As against modern individualism in Art finding countenance in K. Lange's assertion that science cannot lay down any normal proportions, since the assumption that there are proportions beautiful in themselves is untenable, the author endeavours to show that beauty has its fixed laws and that there is an inward relation between the laws governing natural process and those of artistic creation. He enters upon elaborate and intricate investigations and calculations to prove that the higher forms of Nature and Art are constructed according to a plan based upon consideration for the most striking parts of the form and upon the numbers 4, 5, 6, and especially 5 and 6. Widening the concept *rhythm* so as to embrace the order according to which everything occupying space or time is divided into smaller sections, it is his intention to produce an outline of the Rhythmic of Form, the present work restricting itself to the establishment of a fundamental morphological and rhythmical law resting upon an interpectination of continued geometrical and arithmetical proportions. To take only one element of that law for the sake of clearness, as an example of what the author means: *Bei den höheren Natur- und Kunstformen, seien sie ein-, zwei- oder dreidimensional, kann man zu jedem Gliederungspunkte mindestens zwei andere Gliederungspunkte derselben Form angeben, die mit jenem einen Rhythmus bilden* (p. 226). Turning back to page 216 to see what we are to understand by a *Rhythmus* we find: *Drei oder mehr mathematische Punkte . . . bilden einen Rhythmus, wenn entweder ihre Abscissen oder ihre y-Ordinaten oder ihre z-Ordinaten für sich eine stetige geometrische Proportion oder eine fortschreitende stetige geometrische Proportion bilden.* In this sort of way the author is to establish a scientific knowledge and developed technique of the rhythmical which will furnish a sure criterion of taste and protect the artistic neophyte from aimless fumbling. Moreover, it may yet be possible to explain the fact of the rhythmic plan

of construction as a phenomenon of adaptation, and Rhythmic may form the means for the comprehension of an evolution of that which has form, wide enough to embrace the whole Cosmos, binding together organic and inorganic. Well, I am sure we all wish him luck! His great ingenuity and industry deserve some reward—so does his rather emphatic self-conviction. We certainly should not hail the imposition of any hieratic proportions, but, if the author's conclusions were valid, they might form a scientific groundwork of more or less importance according to the art involved. The idea that science is actually to lay down rules for artistic creation is surely not seriously entertained by the author, who must know that in its highest forms it depends upon such a stirring of the emotional and conative aspects of the soul as always lie a little way the other side of any science the artist or anybody else is consciously possessed of. I hope the author does not regard æsthetics as exhausting its import in the aspect which he has treated.

DAVID MORRISON.

Gesammelte Abhandlungen zur Physiologischen Optik. Von ARTHUR KONIG. Mit einem Vorwort von Th. W. Engelmann. Leipzig, 1903.

The thirty-two papers brought together in this volume are the product of the late Arthur König's researches during the twelve years that he occupied the Chair of Physiological Optics in the University of Berlin. They testify to the indomitable spirit of the man who, in spite of the constitutional weakness of body that brought him to an early grave, could carry through the many laborious investigations and make the many valuable additions to our exact knowledge of the facts of vision which are embodied in the volume. König was a favourite pupil of the great Helmholtz, his bent and training were primarily mathematical and physical, and his work exhibits both the merits and the defects of a mind of this type when it grapples with the complicated problems presented by the sensory processes. The great merit is the extremely careful and exact quantitative determination of many important data. The defects are the ignoring of the complexities of the organ of vision, and a tendency to rely too much upon deductive reasoning. Like Helmholtz, König never attempted to penetrate beyond the retina into the mysteries of that extremely complex mechanism of which it is but the peripheral extremity, and hence the range of problems open to his investigation was a limited one. His excessive reliance upon deductive reasoning appears in his theory that the sensation of blue is excited through the medium of the visual yellow of the rods of the retina. For this suggestion, which is at variance with well-established facts, was a deduction from the single carefully determined fact that the coefficients of absorption of light of different parts of the spectrum by visual yellow form a curve that approximately coincides with the curve representing the sensitivity of the retinal blue-exciting process to the light of the various regions of the spectrum. Probably the most permanently valuable of these researches are, on the one hand, those which determined the three primary colour-processes, red, green and blue, by the careful quantitative examination and comparison of the vision of normal and of colour-blind eyes, and, on the other, those by which König contributed so greatly to the most important recent advance of the physiology of vision, namely the proof that the rods of the retina with their visual purple constitute a separate organ for achromatic vision and one specially adapted for vision in dim light.

W. McD.

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VIII.—PHILOSOPHICAL PERIODICALS.

PHILOSOPHICAL REVIEW. Vol. xii., No. 6. **J. E. Creighton.** 'The Standpoint of Experience.' [Attempts, by a method of exclusion, to formulate a view of experience that shall stand the test of criticism as laid down in the history of philosophy.] **F. L. van Becelaere.** 'St. Thomas's Philosophy of Knowledge.' [Sketches St. Thomas's doctrine of the human soul, the human intellect and the value of human knowledge.] **E. B. McGilvary.** 'Ethics, a Science.' [Ethics is science, not art; descriptive and critical, not normative; at once theoretical and practical. In data and method it resembles science more than philosophy.] Reviews of Books. Summaries of Articles. Notices of New Books. Notes. **L. W. Allen.** 'McTaggart's Interpretation of Hegel's Category of Cognition.' Vol. xiii., No. 1. **J. Watson.** 'Aristotle's Posterior Analytics.—I. Demonstration.' **E. Ritchie.** 'The Reality of the Finite in Spinoza's System.' [The dualism which differentiates between an Absolute, and a phenomenal world of manifold appearance having no intrinsic reality, is foreign and adverse to Spinoza's ontology. His theory of being is inextricably bound up with his theory of knowledge.] **A. K. Rogers.** 'Rationality and Belief.' [Attempts to adjust the relative claims of the logical and the extra-logical factors in belief.] Reviews of Books. Summaries of Articles. Notices of New Books. Notes. Vol. xiii., No. 2. **J. Royce.** 'The Eternal and the Practical.' [Discussion of the place which our acknowledged and indispensable empiristic tendencies ought to occupy in the whole context of our philosophical opinions, and of the share which our practical postulates (ethical undertakings, doctrine of conduct) ought to have in determining our entire view of the universe.] **J. Watson.** 'Aristotle's Posterior Analytics.—II. Induction.' **J. Dewey.** 'The Philosophical Work of Herbert Spencer.' [Social philosophy gave Spencer his fundamental ideas and ideals; biology put these vague and pervasive ideals in something like scientific shape; physical-astronomical speculations furnished the causal machinery for getting the scheme under way, and added to the appearance of scientific definiteness and accuracy.] **H. N. Gardiner.** 'Proceedings of the Third Meeting of the American Philosophical Association, Princeton University, December 29-31, 1903.' Reviews of Books. Summaries of Articles. Notices of New Books. Notes. Vol. xiii., No. 3. **E. A. Singer.** 'On Mechanical Explanation.' [If the inadequacy of the mechanical ideal cannot be demonstrated from the aspects of nature studied by the biologist, then in no other region of experience can we expect to find such a demonstration. The question of the ultimate success of this ideal remains.] **J. E. Creighton.** 'Purpose as Logical Category.' [The terms 'practical' and 'purpose' are ambiguous; the instrumental view is, logically, individualistic; practical purposes must be referred to the unity of life and experience; the theory creates a dualism between immediate experience

and ideational process; it must rest upon a logical and ontological basis quite different from that which it claims for itself.] **H. H. Bawden.** 'The Meaning of the Psychical.' [Consideration of the psychical in relation to that process of tension in experience which is the condition of consciousness.] **G. Santayana.** 'What is Æsthetics?' [The group of activities we call æsthetic is a motley one, created by certain historic and literary accidents.] Discussions. **T. de Laguna.** 'Evolutionary Method in Ethical Research.' [Critique of Dewey.] **C. A. Strong.** 'Reply to Professor Bakewell.' **C. M. Bakewell.** 'A Rejoinder.' Reviews of Books. Summaries of Articles. Notices of New Books. Notes.

Psychological Review. Vol. x., No. 5. **G. B. Cutten.** 'The Case of John Kinsel.'—I. [First part of detailed account, without theoretical implications, of the development of 'double personality' in a college undergraduate.] **J. P. Hylan.** 'The Distribution of Attention.'—II. [Completion of account of tachistoscopic experiments; choice reactions; reactions to disparate impressions; the mental after-image. Results: the experiments on counting, and those in which reactions with concentration and with attempted distribution of attention were compared, gave no evidence of distribution. "Simultaneous distribution is . . . a psychological impossibility. The duration of the mental after-image easily explains the phenomena . . . ascribed to distribution in tachistoscopic experiments."] **M. Meyer.** 'Some Points of Difference Concerning the Theory of Music.' [Reply to criticism of Dixon (Mind, Oct., 1902) and Lipps (*Zeits.*, 1901), with further elaboration of the writer's theory.] Discussion. **C. L. Franklin.** 'An Ill-considered Colour Theory.' [Criticism of von Oppolzer (*Zeits.*, 1902).] Psychological Literature. New Books. Notes. Vol. x., No. 6. **I. W. Riley.** 'The Personal Sources of Christian Science.' [Sketch of the life and personality of Mary Baker Eddy, the founder of Christian Science.] **G. B. Cutten.** 'The Case of John Kinsel.'—II. [Completion of record, and discussion of certain features of the case.] **W. Fite.** 'The Place of Pleasure and Pain in the Functional Psychology.' [Conflict is a condition of consciousness, but specially a condition of pleasure-pain. Pleasure is succeeding, pain is failing, in the process of resolving a conflict.] Discussions. **P. Hughes.** 'Moral Feeling as a Basis of the Psychology of Morals.' [The moral sentiment proper is that which characterises the *restraint* of an emotive tendency to act, by a purely intellectual activity.] **M. Prince.** 'Professor Strong on the Relation between Mind and Body.' [Argument of the writer's work *The Nature of Mind and Human Automatism* (1885) anticipates Strong's work.] **W. R. Newbold.** 'Professor Hammond on Aristotle's Psychology.' Psychological Literature. New Books. Notes. Vol. xi., No. 1. **R. Dodge.** 'The Participation of Eye Movements in the Visual Perception of Motion.' [There are two types of eye movement concerned: the primary reactive displacement of the line of regard towards an eccentric point of interest, and the true pursuit movement. Neither is of any importance for movement perception.] **B. Sidis.** 'An Enquiry into the Nature of Hallucinations.'—I. [Perceptions are made up of nuclear elements, directly presented, and marginal elements, secondarily presented (not represented). Hallucinations are secondary sensations.] **J. M. Baldwin.** 'The Limits of Pragmatism.' [Pragmatism must give a logical account of reality. Neither member of a genetic dualism (such as logical truth and experienced value) can explain the principle of the process in which the dualism arises: a further genetic process is needed.] Discussion. **W. I. Thomas.** 'The Sexual Element in Sensibility.' [Egoism may go back to the food-struggle, altruism to courtship.] **C. A. Strong.** 'Dr. Morton Prince and Panpsychism.'

Editor's Note. Vol. xi., No. 2. **W. L. Bryan.** 'Theory and Practice.' [The illusions of theory: consistency and precision. The success of theory: concrete science and experience with affairs.] **M. Meyer.** 'On the Attributes of the Sensations.' [Discussion of principles and tabulation of sensations and attributes.] **B. Sidis.** 'An Inquiry into the Nature of Hallucination.'—II. [Continued analysis of hallucinations as dissociated secondary percepts.] Discussion. **F. C. French.** 'The Mechanism of Imitation.' [Explanation of imitation in terms of motor associations, either based on instinct or established by purely random activities.] Vol. xi., No. 3. **H. J. Pearce.** 'The Law of Attraction in Relation to Some Visual and Tactual Illusions.' [Experiments designed to reveal the exact relation between primary and secondary stimuli and the effect in perception of the one upon the other.] **W. R. Wright.** 'The Relation between the Vasomotor Waves and Reaction Times.' [The reactions form a curve which agrees closely with the curve of the observer's Traube-Hering waves.] **G. T. Stevens.** 'On the Horopter.' Shorter contributions: **C. L. Herrick.** 'The Logical and Psychological Distinction between the True and the Real.' [The feeling of reality comes from the immediateness of the elements of experience; the judgment of truth is a fluctuating evaluation based on relations known rather than felt.] **G. A. Tawney.** 'The Period of Conversion.' [Character of conversion, and its relation to the adolescent period.] **J. M. Baldwin.** 'The Genetic Progression of Psychic Objects.' [Tentative schema of the series of determinations of objects at the successive stages of cognitive development.] Notes. **M. W. Calkins.** 'On the Attributes of Sensation.'

Psychological Index for 1903. Compiled by **H. C. Warren**, with the co-operation of **G. R. D'Allonnes, F. G. Bruner** and **C. S. Myers.** [Issued April, 1904: 2,122 titles.]

American Journal of Psychology. Vol. xiv., Nos. 3, 4. This double number of the *American Journal* is edited by Profs. Sanford and Titchener as a commemorative number, dedicated to President G. S. Hall on the occasion of the twenty-fifth anniversary of his attainment of the philosophical doctorate. It contains twenty-six papers, written by colleagues and former pupils, and has as frontispiece a heliotype of President Hall. We have space only for names and titles. **H. Beaunis.** 'Contribution à la psychologie du rêve.' **A. Kirschmann.** 'Deception and Reality.' **J. H. Hyslop.** 'Binocular Vision and the Problem of Knowledge.' **I. M. Bentley.** 'A Critique of Fusion.' **M. F. Washburn.** 'The Genetic Function of Movement and Organic Sensations for Social Consciousness.' **J. Jastrow.** 'The Status of the Subconscious.' **A. Meyer.** 'An Attempt at Analysis of the Neurotic Constitution.' **G. T. W. Patrick.** 'The Psychology of Football.' **W. H. Burnham.** 'Retroactive Amnesia: Illustrative Cases and a Tentative Explanation.' **J. H. Leuba.** 'The State of Death: An Instance of Internal Adaptation.' **A. F. Chamberlain.** 'Primitive Taste-Words.' **B. Edgell** (communicated by **A. D. Waller**). 'On Time Judgment.' **E. B. Titchener.** 'Class Experiments and Demonstration Apparatus.' **M. Meyer.** 'Experimental Studies in the Psychology of Music.' **O. Kuelpe.** 'Ein Beitrag zur experimentellen Aesthetik.' **A. C. Ellis** and **M. M. Shipe.** 'A Study of the Accuracy of the Present Methods of Testing Fatigue.' **J. A. Bergström.** 'A New Type of Ergograph, with a Discussion of Ergographic Experimentation.' **W. B. Pillsbury.** 'Attention Waves as a Means of Measuring Fatigue.' **G. M. Whipple.** 'Studies in Pitch Discrimination.' **J. McK. Cattell.** 'Statistics of American Psychologists.' **Y. Motora.** 'A Study of the Conductivity of the Nervous System.' **T. L. Bolton.** 'The Relation of Motor Power to Intelli-

gence.' **F. B. Dresslar.** 'Are Chromæsthesias Variable? A Study of an Individual Case.' **E. C. Sanford.** 'On the Guessing of Numbers.' **E. F. Buchner.** 'A Quarter Century of Psychology in America: 1878-1903.' **L. N. Wilson.** 'Bibliography of the Published Writings of President G. Stanley Hall.'

International Journal of Ethics. Vol. xiv., April, 1904. **F. Adler.** 'The Problem of Teleology.' ["The notion of end as being bound up with the notion of organism exists in idea only and not in fact; it cannot serve us in the business of explaining nature at all, but only of evaluating it; its principal use must be found . . . in the ethical field."] **J. G. James.** 'The Ethics of Passive Resistance.' ["'Passive Resistance' has no support on ethical lines alone," but "may possess some moral value, such as will always attach to the movements that are carried out with moral seriousness and sense of moral responsibility."] **W. E. B. Du Bois.** 'The Development of a People.' [A plea for the better education of the American negro.] **C. S. Myers.** 'Is Vivisection Justifiable?' [There are "always some to believe that the Fall of Man comes from the Fruit of Knowledge. These are the real opponents of vivisection."] **J. H. Leuba.** 'Professor William James's Interpretation of Religious Experience.' [The possibility of spirit-intervention is exaggerated.] **J. H. Muirhead.** 'Wordsworth's Ideal of Early Education.' [Wordsworth discountenanced the too early severance of the child from the objects and events which form the natural stimulus of its growing powers, and disregard of the unity of the child's nature.] **J. C. Murray.** 'What should be the Attitude of Teachers of Philosophy towards Religion?' [In opposition to Prof. Royce the writer maintains that the philosopher should not detach himself from the religious life of the community, especially as that is expressed in philanthropic movements.] **J. Kindon.** 'Byron *versus* Spenser.' [A contrast of Byron's low ideal and rejection of morality with Spenser's high ideal of moral and spiritual beauty.] Book Reviews.

L'Année Psychologique (Neuvième Année), edited by Alfred Binet. Paris: Schleicher Frères et Cie, 1903, pp. 666. The first part of this volume consists of original memoirs (pp. 1-252), the second of very full analyses of recent books and articles (pp. 253-508), and the third of a title-bibliography for the year 1902 (with index, etc., pp. 509-666). The memoirs are the following: I. **P. Malapert.** 'Enquête sur le sentiment de la colère chez les enfants.' [A report upon the returns of a questionnaire sent to various teachers regarding the origin, expression, concomitants and effects of anger in children. Incidentally paleness is shown to be a more common "expression" (40 per cent. in the returns) than Darwin, Ribot and Lange allow; perhaps, however, this could not be generalised to other races. Two distinct types of anger are said to emerge—the offensive (Ribot's *colère animale*) and the defensive: in the latter there is no act of attack or destruction, even incipient—the stamping, rapid movements, cries and blows upon inanimate objects are rather instinctive efforts of distraction (from physical pain), than results of hypo- or an-æsthesia (Lange). Excessively frequent or grave crises of anger in children are correlated with degenerate heredity, nervous instability, etc.; the cure is to be sought in hygienic measures and rational education.] II. **B. Bourdon.** 'Sur la distinction des sensations des deux yeux.' [An interesting review of the literature of this subject, to which M. Bourdon has himself largely contributed, and a statement of his position. There is (1) an *objective phenomenon*, showing that the sensations conditioned by corresponding processes in the two retinæ may be distinguished; when a luminous

point (on the horopter) is observed first with both eyes, then hidden from one eye, there appears a shadow on that side of the luminous point which corresponds to the veiled eye (on the right for the right eye). (2) *A subjective phenomenon:* a sensation of bluntness, dulness, heaviness, in the veiled eye, a feeling of ease or lightness in the seeing eye: this is absent when the impressions received by the two eyes differ in quality only, not in intensity. Bourdon finds this sensation to be peripherally rather than centrally conditioned; its source is in the muscles or tendons of the eye: "the sensation of heaviness, if caused in the eye that receives the darker or less distinct image, is due to the fact that the muscular apparatus of this eye is, as compared with that of the other eye, in a state of relative depression, hence the effort of fixation is felt more strongly in this eye than in the other. The state of depression, again, is caused by the feebleness of the retinal excitation" [p. 541.] III. **A. Binet.** 'L'écriture pendant les états d'excitation artificielle.' [Under mental excitement, the *amplitude* of writing movements is increased. Binet caused his subjects to write some phrases, then to repeat them, with a change of vowels, e for a, i for e, etc.: the effect was to increase the output of mental energy, and to concentrate it upon the writing movements. The letters were found to be larger, more clearly written, more detached from each other, more impersonal in form, *i.e.*, the writing was less mechanical. The explanation offered is that there occurs a diffuse excitation of the movement area, partly perhaps connected with the more accurate and stronger images, to which the intensified thought gives rise.] IV. 'La mesure de la sensibilité.' V. 'Les simplistes.' VI. 'Les Distraits.' VII. 'Les Interprétateurs.' VIII. 'Influence de l'exercice et de la suggestion sur la position du seuil.' IX. 'Le seuil de la sensation double ne peut pas être fixé scientifiquement.' [These various papers by M. Binet (pp. 79-252) constitute in reality a work by themselves—a study in tactual sensation and interpretation. The conclusions are interesting and occasionally startling. M. Binet takes the reader wholly into his confidence and gives at large the materials on which he has founded. The methods of experimental psychology are still on their trial, and therefore the fullest description of the work of a skilled experimenter is valuable to those who are following after. M. Binet has certainly not erred on the side of restraint. The main theme which runs through the several papers is that the threshold of touch-sensation is the most unstable of quantities. What is tested by the Weber method in æsthesiometry is not the sensibility of the subject, but his judgment, his mental character, his ability to interpret the sensations received. The word "sensibility" has been used in two meanings—(1) power of appreciating the objects that surround us, and especially the stimuli that act upon us (Weber's sense), (2) the group of sensations produced in us in consequence of stimuli acting upon our organism (Fechner's)—and these have been confused. Nor have we distinguished properly between tests of the fineness of sensibility—the threshold, initial or differential,—and tests of the accuracy of judgment—the error methods. The application of measure in psychological work does not result in any real measure of sensations or other psychical phenomena as such, its sole value is towards the classification of individuals as to the accuracy of their judgment. It is from the second conception of sensibility, confused with the first, that the errors of method in psychology have arisen; it being thought that sensations themselves could be measured, the subject became of no importance, his rôle automatic, his replies reduced to "yes" and "no," "one" or "two". M. Binet's studies bear especially upon what he calls

"the distinction of tactile sensations" (*Raumsinn*), the ability to distinguish two points at small distances apart on the skin. In his scepticism with regard to the possibility of determining scientifically a minimal threshold, M. Binet claims a forerunner in Tawney (*Phil. Stud.*, xiii.), whose paper is said to contain ideas more revolutionary than their author supposed. Enormous differences were found not only between different persons, but in the same person at different séances: moreover the occurrence of the *Vexirfehler*, two points being felt when one only was applied, was hopelessly inconsistent with the conception of a threshold: it depends, as Tawney saw, on the direction of the attention, preperception, etc. Binet's method is to invite the fullest self-analysis from his subjects: he asks them to describe their sensations, and the grounds of their judgment, and he correlates what is said with the numerical facts recorded at the same time. Much practical advice is given as to the choice of an instrument (for a new one *vide* p. 106 ff.), the choice of subjects (avoid the laboratory pupil, seek variety), the choice of experimental method (irregular variations rather than minimal), the importance of the *Vexirfehler* as a mark of mental character, the elaboration of protocols (omit nothing that is said or done), and the ways of avoiding distraction. In the course of his work on æsthesiometry Binet was led to distinguish two chief types of mind, with distinct attitudes towards the stimuli presented: they are the *simplistes* and the *interprétateurs*. Incidentally we are given several interesting character studies of individual representatives of these types. The marks of the *simpliste* are that he makes no errors, or almost none, with regard to the single point; and that the threshold for "two points" is both *obtuse* and *distinct*—a line rather than a zone. The reverse is true of the "interpreter". The interrogation of some of the subjects brings out the fact that this difference depends on their attitude towards the sensations actually felt. The standpoint of the "*simpliste*" is objective; when his attention is directed to the sensation rather than to its object, he takes the former simply for what it appears to be. Hence he says "two points" only when he feels two *distinct* points: he says "one point" even for the broad or thick or linear sensation which occurs when the stimuli are at a moderate distance apart: he never confuses the one point with two except through distraction. In the "interpreters," one of whom (p. 209) gives the *reductio ad absurdum* of æsthesiometry, we find (1) an extreme lowering of the threshold for double sensation, and (2) a great increase in the number of errors on the single point. Psychologically, the character of this type is that it does not stop at the mere sensation, but regards that as a sign, by which to appreciate the external cause. Whenever there is any acquaintance with the instruments used, *e.g.*, this phenomenon of interpretation is found, and it of course renders the results incomparable with those derived from a subject who is of the *simpliste* type. Mme A——, for example, has reminiscences of a compass-æsthesiometer of ten years before, and all her reasonings have reference to this (p. 223 ff.). "The points are two but close together:" "one presses harder than the other," etc. The remarkably correct results and estimates of Marie G., whose threshold is 0·5 cm. on back of hand, and who estimates distances of 5 mm. (ten times) and 1 cm. (eight times) in each case with absolute correctness, are probably to be explained by foreknowledge rather than by hyperæsthesia: she was the *femme de chambre* of the laboratory (*vide* p. 228). Under the influence of autosuggestion or of emotion or of external suggestion of any kind, a *simpliste* may in a few séances develop into an interpreter: the standpoint, formerly objective, now becomes subjective. From such

facts as these there is derived the conclusion that threshold determination is scientifically valueless. The paper on "Les Distraits" shows that the Weber method may be used for detecting the influence of various types of distraction.]

J. L. McIntyre.

Revue de Philosophie. Janvier, 1904. The interest of this number centres in the first article, 'La Science et l'Esprit Philosophique,' the tenor of which is this. Auguste Comte and his school regarded Religion as subjective and emotional, whereas Science was to them the grand revealer of objective truth and fact. The increased complexity of facts and laws, revealed by Science since Comte's time, has induced a New Positivism, which transfers Science in its turn to the subjective side, and regards a so-called fact or law of nature as representing chiefly a human mode or present phase of thought. Thus we may attain to consistent thought; and some modes of thought will be found practically advantageous above others; but we do not arrive at any final power of predication of the attributes of external nature *in se*. We have liberty in our scientific thinking; and nature is, in large measure, what man in any particular age chooses to take it to be. The mind does not passively register the facts of nature, as Comte thought: it in a manner makes them by its own activity. The facts and laws of one generation are set aside in the next; the one thing that endures is the activity of the human mind: action is our glory rather than knowledge; research into truth hidden, not contemplation of truth found. All this theory the writer, **M. Georges Michelet,** argues to rest upon a confusion of two different things, the 'scientific spirit,' that is, the labour of research, and 'science' itself, that is, the results achieved by the scientific spirit, or the known truths the possession of which is the reward of research. The scientific spirit is 'free'; it multiplies hypotheses, it varies its methods at will; but Science is not 'free,' it is definite, determined, inexorably fixed by something which is not the mind of man. Nature is not the complaisant ally of our illusions. The last line of this number informs us: "Avec A. Bain l'Ecole anglaise perd son psychologue; avec H. Spencer, son métaphysicien". This total eclipse is not visible in England. Février, 1904. 'Le Problème moral,' by **George Fonsegrive,** is a luminous exposition of the foundations of Ethics; it points out the error of Stoicism: it carries us back to Newman's view of conscience. **Paul Hermant,** 'De la nature de l'émotion,' maintains that every sensation, thought, and act of attention is accompanied by emotion, emotion being our mode of grouping our subconscious states (*états de pénombre*), and every emotion creating in us a special way of regarding the external world. The cerebral location of the higher powers of mind is discussed between **Drs. Surbled** and **Grasset.** 'Méthodes et Conceptes,' by **Paul Dupuy,** a remarkable defence of the subjective method in philosophy against the objective, is analysed minutely. There is a letter on the teaching of Thomism in *grands séminaires*. Lastly, here is one view of evolution: "Evolution of an animal species, endowed with a brain of intricate convolutions, which an unconscious selection has rendered more apt than other Primates to react against the causes of destruction that surround it, heat, cold, hunger, ferocity of Carnivora: a species the different families of which kill one another, in order that natural selection may accomplish its work of education, and allow only chosen races to subsist: where some individuals, inferior to others in muscle, but superior in cerebral development, have had recourse to stratagem to subdue their sturdy adversaries, and have put their instincts in fetters by means of

the knaveries called morality, or religion; where others, better to master the forces of nature, have devised sciences, the sole legitimate object of which is to increase the modicum of physical enjoyments allotted to each representative of the species; enjoyments, however, which the strongest or shrewdest members monopolise, while the common herd agonises and suffers, waiting for the violent revolution that shall allow them to gorge themselves in their turn: evolution without purpose for the individual, whom chemical actions decompose after some years in which he has known more bitterness than joy; evolution without finality for the race, the last representatives of which will die of cold and hunger on a frozen planet, where never geologist shall come to disinter their fossil remains" (pp. 207-208).

Archives de Psychologie. Tome ii., No. 3. **F. Consoni.** 'La mesure de l'attention chez les enfants faibles d'esprit (phrénasthéniques): recherches expérimentales.' [The work was done in the laboratory of Prof. de Sanctis, and employs his terminology. The æsthesiometric method gives good results in the study of discriminative tactual attention, static or dynamic. In all but the most serious cases the children show a certain degree of static conative attention; there may also be indications of dynamic conative attention, rapid enough for practical purposes but narrow in range. Exact relations obtain, in the individual case, between dynamic attention and certain aspects of static attention; there is also a correspondence between natural and conative attention. General capacity of attention is directly proportional to degree of emotivity and power of inhibition. Normal children evince a greater promptitude of conative adaptation and a higher development (often a wider range) of capacity for dynamic conative attention.] **T. Jonckheere.** 'Notes sur la psychologie des enfants arriérés.' [Muscular sense, illusion of weight, movement; colour sensitivity; visual memory; ideas of space and time; acquisition of languages, reading, mathematics; lying.] **T. Flournoy.** 'F. W. H. Myers et son œuvre posthume.' [Interesting appreciation of Myers's *Human Personality*.] Recueil de Faits: Documents et Discussions. **D. Baud-Bovy.** 'Le combat des vaches dans les Alpes valaisannes.' [Description of the contest, with psychological notes.] Bibliographie. Publications reçues. Notes diverses. [Necrology of Ernest Murisier.] Tome ii., No. 4. **M. C. Schuyten.** 'Sur les méthodes de mensuration de la fatigue des écoliers.' [Tests of auditory memory of numbers.] **T. Flournoy.** 'Observations de psychologie religieuse.' [Psychological discussion of six 'confessions'.] **H. Zbinden.** 'L'influence de la vie psychique sur la santé.' [Case of auto-suggestion of tumour in the throat, cured by counter-suggestion.] Recueil de Faits: Documents et Discussions. **J. E. David.** 'Observations de psychologie canine: hiérarchie, politesse et vassalité.' **F. Guillermet.** 'Un cas de mensonge infantile.' Bibliographie. Notes diverses. Tome iii., No. 1. **E. Yung.** 'Recherches sur le sens olfactif de l'escargot.' [Careful investigation of Helix pomatia.] **E. Claparède.** 'Le mental et le physique d'après L. Busse.' [Plea for retention of parallelism, with consideration of its difficulties.] **A. Lemaitre.** 'Des phénomènes de paramnésie.' [In the case studied, paramnesia consisted in the conscious revival of subconscious perceptions received a short time before, and antedated on their appearance in consciousness.] Recueil de Faits: Documents et Discussions. **A. Elmer.** 'IV^me^ Conférence suisse pour l'éducation des anormaux: Lucerne, 1903.' Bibliographie. Notes diverses.

Zeitschrift für Psychologie und Physiologie der Sinnesorgane. Bd. xxxii., Heft 2. **B. Fuchs.** 'Ueber die steresokopische Wirkung der

sogenannten Tapetenbilder.' [Review of experiments of Meyer, Helmholtz, and Becker and Rollett. An exactly drawn pattern will not give the stereoscopic impression, because all double images fuse, and it is only the suppression of unfused double images that can occasion the perception of the third dimension; hence the patterns used by the earlier investigators must have been inexact. Explanation and illustration (by a very striking circle-pattern) of the phenomena.] **K. L. Schaefer** and **A. Guttmann**. 'Ueber die Unterschiedsempfindlichkeit für gleichzeitige Töne.' [Review of experiments of Bosanquet, Stumpf and Krüger. Preliminary experiments with forks and tonometer. Final series, with blown bottles: the absolute sensible discrimination for simultaneous tones is considerably less than that for successive; the limen of duality lies in the middle region of the musical scale at 10 to 20 vs.; discrimination is best in the once-accented octave, and decreases with descending pitch of the primary tones.] **H. Piper.** 'Ueber die Abhängigkeit des Reizwertes leuchtender Objekte von ihren Flächen- bezw. Winkelgrösse.' [The stimulus value of an object for the periphery of the dark-adapted retina increases and decreases, not only with the objective light intensity, but also with the surface magnitude of the corresponding retinal image; the brightness sensation in the periphery of the light-adapted retina depends, on the other hand, almost exclusively upon light intensity, and hardly at all upon surface magnitude. This result finds a ready explanation in the von Kries-Parinaud theory of visual sensations.] **J. von Kries.** 'Ueber die Wahrnehmung des Flimmerns durch normale und durch total farbenblinde Personen.' [The normal eye requires a much greater speed of rotation (about three times as great) of the episcotister for the disappearance of flicker than does the totally colour-blind eye. Visual acuity and capacity of temporal discrimination (measured by flicker observations) show a precisely parallel dependence upon illumination: both slowly increase with least intensities of light; at an approximately definite intensity, both suddenly depart from this original form of dependence, and increase much more quickly. These results speak for the author's theory.] Literaturbericht. Bd. xxxii., Heft 3 und 4. **H. Piper.** 'Ueber das Helligkeitsverhältnis monokular und binokular ausgelöster Lichtempfindungen: Fortsetzung der Untersuchungen über Dunkeladaptation des Sehorganes.' [For the light-adapted eye, equality of the light intensities observed in monocular and binocular vision means, as a general rule, equality of the corresponding brightness sensations; in dark adaptation, on the other hand, the light intensity monocularly observed must be considerably greater than that binocularly observed, if the two sensations are to appear equal. The paper contains a review of previous literature, and description of apparatus employed in the writer's experiments.] **E. A. McC. Gamble** and **M. W. Calkins.** 'Die reproduzierte Vorstellung beim Wiedererkennen und beim Vergleichen.' [First part of the investigation, dealing with recognition. Recognition does not, as Lehmann maintained, depend upon reproduced ideas. For (1) attendant ideas, that are not only clear but correct, often appear with the consciousness of unfamiliarity; (2) associations that are clear enough to be reproduced do not always occur, even where recognition is well-marked; and (3) introspection declares, as a rule, that the attendant ideas are subsequent to recognition. On the other hand, the statistical method is inadequate to the nature of the recognitive process itself; it cannot decide between the theories of organic sensation and quality of familiarity; though the results indicate that the feelings of tension and relief play a considerable part. The feeling of unfamiliarity is a clear and positive conscious content, and not the mere absence of

familiarity ; its relative poverty of associations may be explained, in part, as due to the (teleological) concentration of attention upon the unfamiliar content itself.] **P. Schultz.** 'Gehirn und Seele.' [A discussion of the relation of brain and mind in the light of Kantian principles, and more especially of the works of Cohen and Stadler. The author seeks to show that the whole aim of the *Kr. d. reinen Vern.* was to furnish an adequate basis for Newton's mathematical natural philosophy, and that Kant at the same time determined the share that philosophy has, alongside of mathematics, in such a natural science. He defines the relation of brain and mind as a temporal psychophysical parallelism. Psychology can never be a science ; but the physiologist may have recourse to psychology where exact procedure is impossible. Cause and purpose, causality and freedom, are not antithetical concepts, but disparate and mutually supplementary.] **A. Bernstein.** 'Ueber eine einfache Methode zur Untersuchung der Merkfähigkeit resp. des Gedächtnisses bei Geisteskranken.' [Exposure of geometrical figures, and their subsequent selection from memory on a table of similar figures.] Literaturbericht. Bd. xxxii., Heft 5. **S. Exner** and **J. Pollak.** 'Beitrag zur Resonanztheorie der Tonempfindungen.' [Experiments with forks and telephone. The difference of half a wave-length, which recurs periodically in a train of tone waves, produces a sensation, not to be distinguished from the sensation produced by beats. A train of tone waves, in which these phase differences occur with sufficient rapidity, gives rise to a tonal sensation of lower intensity than the same train of waves when free from phase differences. The auditory impression caused by a train of tone waves in which the phase differences occur sinks in intensity, not only when the elongation of its vibrations is reduced, but also when the number of phase differences in the time unit is increased. This reduction of intensity may be carried to inaudibility of the tone. All four results accord with the theory of resonance or sympathetic vibration, but have not so far been explained by alternative theories.] **A. Guttmann.** 'Blickrichtung und Grössenschätzung.' [Experiments with lines and circles to test Zoth's hypothesis that the estimation of magnitude depends upon direction of gaze. Distances and objects of this kind, seen under otherwise similar conditions, and estimated as magnitudes, appear at a distance of 25 to 236 cm. from the eye 3·5 to 3·66 times smaller when elevated 40° above the horizontal plane of regard than when viewed directly in this plane itself.] Literaturbericht. Bd. xxxii., Heft 6. **C. Rieger.** 'Ueber Muskelzustände.'—II. **G. Schaefer.** 'Wie verhalten sich die Helmholtz'schen Grundfarben zur Weite der Pupille?' [The fundamental colours as such produce no marked pupillomotor effects.] Literaturbericht. Bd. xxxiii., Heft 1 und 2. **A. Meinong.** 'Bemerkungen ueber den Farbenkoerper und das Mischungsgesetz.' [There is no such thing as psychological colour mixture : only physical and physiological. Psychical data are, however, embodied in the laws of colour mixture, which are propositions concerning the relations between points of a correctly constructed psychological colour schema. In strictness, there is but one law of colour mixture : the quantity involved is originally, in every case, the product of light intensity and period of illumination. The law appears in complete purity only in the case of physiological mixture, and then probably only in one instance, that of binocular colour mixture.] **O. Rosenbach.** 'Das Ticktack der Uhr in akustischer und sprachphysiologischer Beziehung.' [The difference between the tick and the tock of a clock is constant, the one being bright and sharp, the other dull and long drawn out : the difference is due to the mode of production of the two sounds. We say tick-tock and not tock-tick because the *i*-

sound has a higher value for consciousness than the *o*-sound.] **T. Ziehen.** 'Erkenntnistheoretische Auseinandersetzungen.'—II. [Discussion of Schuppe and naïve realism.] Literaturbericht. Bd. xxxiii., Heft 3. **E. A. McC. Gamble** and **M. W. Calkins.** 'Ueber die Bedeutung von Wortvorstellungen für die Unterscheidung von Qualitäten sukzessiver Reize.' [Experiments with scents, colours and greys. There is no evidence that the phonetic name-image plays any part in the recognition of simple stimuli. On the other hand, the word helps to induce a consciousness of difference in cases where no objective difference exists.] **E. P. Braunstein.** 'Beitrag zur Lehre des intermittierenden Lichtreizes der gesunden und kranken Retina.'—I. Literaturbericht. Bd. xxxiii., Heft 4. **E. P. Braunstein.** 'Beitrag zur Lehre des intermittierenden Lichtreizes der gesunden und kranken Retina.'—II. [(1) Filehne's phenomenon is affected not only by eye movement but also by the composition of the visual field. (2) Marbe's law that increase of the average general brightness furthers the fusion of sensations is confirmed. (3) Marbe's law that equal duration of intermittence corresponds approximately to equal stimulus difference is not confirmed. (4) Decrease of the difference between two successive intermittent stimuli furthers fusion. (5) In low light and with adequate adaptation, the sensitivity of the centre of the retina to intermittent light is greatly reduced, that of the periphery increased. In good light, these conditions are reversed. (6) With stimuli compounded of a colour and a brightness, the highest number of intermittences is required for the fusion of yellow; then follow red, green, blue. (7) In cases of retinal disease and of turbidity of the refractive media, the S. D. diminishes in direct proportion to the progress of the disorder. In low light, the S. D. falls lower for the disease than for the normal eye; its reduction is not proportional to the reduction of the illumination. (8) In hemeralopia with normal acuity, the S. D. falls only in low light; in hemeralopia with reduced acuity, it is poor even in good light. The reason is probably to be sought in disturbance of adaptation. (9) Von Kries' theory is borne out by the writer's experiments.] **M. Meyer.** 'Zur Theorie japanischer Musik.' [Analysis of three compositions, on the basis of the author's psychological theory of music.] Literaturbericht. Einladung zu einem Kongress für experimentelle Psychologie in Giessen, vom 18. bis 20. April, 1904. Bd. xxxiii., Heft 5. **E. Ritter von Oppolzer.** 'Grundzüge einer Farbentheorie.'—II. [Gives a theory of one-dimensional visual sensations (the totally colour-blind system).] **H. Frey.** 'Weitere Untersuchungen über die Schalleitung in Schädel.' Literaturbericht.

Zeitschrift für Philosophie und Philosophische Kritik. Bd. cxxii., Heft 1. **Prof. Dr. O. Schneider.** 'Die schöpferische Kraft des Kindes (Schluss).' [Continues and concludes a series of observations going to prove the development of human faculty in anticipation of experience. Dr. Schneider makes no reference to the theory of inherited racial experience.] **L. William Stern.** 'Der zweite Hauptsatz der Energetik und das Lebensproblem (Schluss).' [After having shown in a former article that given quantities of energy coexisting at different levels within the same sphere motion would continue irrespective of the absolute amounts involved, the writer proceeds to apply this result to the particular case of life which the present theory of entropy threatens with ultimate extinction. To begin with, Weber and Fechner's law proves that vital activity may become so adapted to its environment as to respond to very much feebler stimulations than those by which it was originally excited. Again the discoveries of Hering and others point to an interpretation of evolution in the sense of a continual diminution in

the amount of energy required for the support of psychical manifestations. And if it is objected that after all life depends for its existence on protoplasm, which again can only exist within a certain relatively narrow range of temperatures—the answer is that the immanent teleology of the universe which created protoplasm as a means for the realisation of life is not restricted to that means, and will doubtless, when the occasion arises, secure the same end by other instrumentalities.] **Johannes Volkelt.** 'Beiträge zur Analyse des Bewusstseins (Schluss).' [The feelings produced by works of art are not, like the things which excite them, unreal, but perfectly real so far as they go. They are, however, as a rule, less intense than the feelings we should experience in witnessing, say, an actual tragedy; and they also differ qualitatively, being more disinterested. In general the more or less vigorous resuscitation of feeling depends on the 'certainty of possibility,' a form of consciousness which has hitherto been neglected, but which may be used for the solution of various psychological problems, otherwise inexplicable. In conclusion it is observed that pleasure and pain are not convertible with feeling, but are experiences accompanying every form of consciousness. Deduct these from feeling (or emotion) and it is not true to say, as Stumpf does, that nothing remains but an intellectual element. Count in volition and even so the analysis is not exhaustive. There remains an intimate consciousness of myself, realised in a particular direction, as the very essence of the feeling.] **Prof. Richard Wahle.** 'Beiträge zur Theorie der Interpretation philosophischer Werke.' [Maintains against Jodl that Spinoza was a naturalist, positivist, and atheist.] **Max Isserlin.** 'Eine neue "Lösung des Raumproblems".' [Begins a criticism on E. von Cyon's recent attempt to show that our perceptions of space originate in the structure of the semicircular canals.] **Rudolf Eisler.** 'Prolegomena zu einer philosophischen Psychologie.' [All forms of mentality should be studied in reference to the self and viewed as its realisations.] **Prof. Rob. Wihan.** 'Zur Feststellung des Begriffes der Wahrheit.' [The notion of truth implies the existence of an external reality discoverable by us.] Bd. cxxii., Heft 2. **Max Isserlin.** 'Eine neue Lösung des Raumproblems (Schluss).' [Von Cyon's explanation of the perception of space leaves Kant's theory unshaken. It assumes the existence of space as something which we perceive by means of the semicircular canals, and totally fails to account for the axioms of geometry.] **H. Kossuth.** 'Einige Bemerkungen zu Haeckels Welträtseln.' [Haeckel's whole philosophy is vitiated by his disregard of the fact that the laws of nature have their origin in the mind. The real riddle begins where he ends. It is: What is that which thought constitutes into a world of objects, concepts and laws?] **Dr. Kristian B. R. Aars.** 'Zur Bestimmung des Verhältnisses zwischen Erkenntnisstheorie und Psychologie.' [Kant's criticism when consistently carried through leads to solipsism. And the admission of other minds coexisting with our own implies the objective existence of causation and of time.] **Prof. W. v. Tschisch.** 'Das Grundgesetz des Lebens.' [The distinctive attribute of living as compared with non-living matter is its unlimited power of attraction and assimilation. There is a fixed point at which the affinities of inorganic matter are saturated. Life is never saturated, but increases for ever, if supplied with nutriment, first by individual growth and then by reproduction. (Prof. v. Tschisch omits to notice that this assimilative power is limited by the amount of energy, especially solar energy, supplied from without.)] **W. Fickler.** 'Unter welchen philosophischen Voraussetzungen hat sich bei Hegel die Werthschätzung des Staates entwickelt, und wie ist diese zu beurtheilen?' [A general sketch of Hegel's philosophy in its relation to the sciences of

human nature, with an accompaniment of hostile criticism. His doctrine of a perpetual flux ought to have debarred him from constructing a system. The theory of continuous progress is inconsistent with the facts of history.] **Dr. H. Reichel.** 'Darstellung und Kritik von J. S. Mill's Theorie der induktiven Methode.' [The first half of an analysis of Mill's theory of induction.]

Rivista Filosofica. Anno v., vol. vi., Fasc. v., November-December, 1903. **F. Bonatelli.** 'Le categorie psicologiche.' [The current tripartite division of mental phenomena under Feeling, Cognition and Volition is unacceptable, as it classes Sensation under Feeling, and Appetite under Volition, whereas they are distinct from, and co-ordinate with, them. Therefore we must count five categories of mentality, neither more nor fewer.] **R. Nazzari.** 'L' uomo di Genio per gli psichiatri e gli antropologi.' [An entertaining exposure of the uncritical, arbitrary and inconsistent methods by which Lombroso and his followers attempt to show that genius is a result of disease or degeneracy.] **O. Nazari.** 'La concezione del mondo secondo il Bhagavadgîta.' **A. Gnesotto.** 'Nota sul canone del Metodo indiretto di Differenza di J. S. Mill.' [Discusses two different emendations proposed by Bonatelli and Masci respectively to Mill's Canon for the Joint Method of Agreement and Difference; and proposes a third emendation, substituting 'the circumstance in which alone the two sets of instances *agree*' for 'the circumstances in which they *differ*'.] Rassegna Bibliografica, etc. Anno vi., vol. vii., Fasc. i., January-February, 1904. **A. Faggi.** 'H. Spencer e il suo sistema filosofico.' [Herbert Spencer is remarkable for the consistency with which he adhered to the same principles through life. He may even be reproached with too great consistency in adhering to the obsolete social philosophy of his youth. But it is a mistake to suppose that the main conceptions of his cosmic philosophy have been superseded.] **C. Cantoni.** 'Un capitolo d' introduzione alla *Critica della Ragion pura* di E. Kant.' [A chapter from a new edition of the author's work on Kant. It is a mistake to regard the second edition of the *Kritik d. r. Vernunft* as a timid or interested recantation of a more idealistic view. On the contrary it represents Kant's genuine opinion rather better than the first; at the same time there is less difference between the two editions than Schopenhauer imagines.] **E. Juvalta.** 'La dottrina delle due Etiche di H. Spencer (Esposizione).' [An exposition preparatory to a criticism of Spencer's method of distinguishing between Absolute and Relative Ethics.] **G. Vidari.** 'Di alcune recenti pubblicazioni di filosofia morale.' [Contains among other criticisms an interesting reply to Salvadori's recent presentation of Spencer's ethical system as a conciliation of the spiritualist or ideal with the utilitarian point of view.] Rassegna Bibliografica, etc. Anno vi., vol. vii., Fasc. ii., March-April, 1904. **V. Alemanni.** 'Dell' odierno concetto della "Storia della Filosofia".' [It is a mistake to look on the various systems of philosophy simply as abstract expressions of the soul of a race or nation at a given epoch. Each system is determined to a considerable extent by earlier speculations, by contemporary religion and science, and by the personality of its author. And systems of thought sometimes mould the age more than they are moulded by it.] **R. Nazzari.** 'L' Argomento di Sant' Anselmo d' Aosta.' [Rebuts some criticisms directed against Anselm's ontological proof of theism, but admits its generally unsatisfactory character.] **A. Aliotta.** 'Psicologia della Credenza.' [Belief is neither an association of ideas nor an act of the will, but rests on an ultimate intuition of reality.] **E. Juvalta.** 'La dottrina delle due Etiche di H. Spencer.—Parte II.' [Sociological fatalism merely accounts for the

ethical rules accepted at any given time, but offers no standard of perfection by which they can be tested and improved. 'Pragmatism' justifies right conduct in the abstract, but leaves its concrete content undetermined.] **A. Manzari.** 'Nota Estetica.' [A sense of the ludicrous arises from the perception of slight physical or social abnormalities.] Rassegna Bibliografica, etc.

Revista di Filosofia e Scienze Affini. Anno vi., vol. i. N. 1-2, January-February, 1904. **G. Salvadori.** 'Erberto Spencer.' [A brief personal sketch.] **G. Marchesini.** 'La metafisica di Erberto Spencer.' [An adverse criticism of Spencer's agnosticism, written from what is called in Italy the positivist point of view. What Spencer said of Comte may be applied to himself; true or false his system has produced a great effect on other minds, exercising a healthy stimulation even on those who reject its fundamental principles.] **G. Tarozzi.** 'La sintesi di Erberto Spencer.' [The nineteenth century is eminently the historical century, and Spencer's synthesis means history projected into an explanation of the universe.] **E. Troilo.** 'La dottrina della conoscenza.' [As against Kantian idealism, Spencer initiated the true psychological method, but continued to isolate the mind far too much from objective reality.] **P. Orano.** 'Erberto Spencer.' [Spencer's name is inseparably linked with the final victory of science over religion.] **C. Ranzoli.** 'La fortuna di Herbert Spencer in Italia.' [Nowhere has Spencer's philosophy gained so many adhesions as in Italy. Yet up to 1870 he was almost unknown there. The work of political unification had to be completed before a system so alien to the old spiritualist traditions could be studied. Among other influences the Hegelian School at Naples considerably facilitated its reception.] **A. Crespi.** 'La religione nella filosofia di Erberto Spencer.' [Spencer does not account satisfactorily for the origin of religion; he does not trace its evolution as he ought; and he gives it too great a place in the final constitution of belief.] **G. Santini.** 'E. Spencer e G. D. Romagnosi.' [Traces some rather superficial analogies between Spencer's ethics and those of the Italian jurist named.] **F. Momigliano.** 'Le idee estetiche di Erberto Spencer.' [Æsthetic emotion is not aroused by the contemplation of extinct utilities. Æsthetic education has more than a mere recreative value and helps to maintain the highest ethical ideals. Hellenism has its rights as well as Americanism. (One's general impression from all these tributes is that the Italian admirers of Herbert Spencer are disposed to crown him with flowers and lead him out of the city.)] Rassegna di filosofia scientifica, etc.

IX.—CORRESPONDENCE.

To the Editor of "Mind".

Sir,—While I appreciate the courteous tone of Mr. Norman Smith's review of my book *Why the Mind has a Body* in the last number of this journal, and thank him sincerely for the kind words of commendation with which it opens and closes, I cannot admit either that he has adequately stated the scope of the book or that his account of my views is in all respects accurate.

The book makes two claims which I think should have been brought out clearly. The first is that *panpsychism enables us to explain the relation of mind and body, at least in its main outlines.* This claim shrinks, in Mr. Smith's account, to a "metaphysical restatement of the parallelist theory," upon which he cannot enter for lack of space. That the view in question is that of Paulsen and Stout, and not merely a private hypothesis of my own, in no wise appears. The second claim of the book is that *panpsychism enables us to adjust the controversy between parallelism and interactionism, by showing that the former is consistent with the efficiency of mind.* Of this claim—surely a rather important one, if it be true—Mr. Smith makes no mention whatever.

The inaccuracies of which I complain are, I am sure, wholly unintentional, and doubtless due in large part to my own defects of statement; nevertheless, I think it my duty to rectify them. And I shall allow myself, in doing so, to discuss certain of my reviewer's criticisms which I am unable to accept.

I do not, as Mr. Smith says, attempt to "prove . . . that brain-fatigue affects attention and all the higher powers of mind," nor do I suppose that Wundt and Ward deny this to be so; but I argue that the fact is inconceivable except on the assumption that attention and the "higher powers of mind," and not merely sensations and images, have cerebral correlates. How is a toxic agent like alcohol or chloroform to affect the "higher powers of mind," unless there be portions or aspects of the brain-process which go on when these powers go on and stop when these powers stop? Those who reply that the powers are dependent on sensations and images, and that it is the correlates of these that go on and stop, do not seem to me to realise the dilemma in which they place themselves by this answer. Either they are committed to a purely sensationalist theory of the higher powers which in effect nullifies their exception from the universal rule, or to the exact degree to which they attribute to them a life separate from the life of sensations and images they fly in the face of the facts. If I fail to discuss Wundt's arguments for a limitation of the correlation, it is because this would at once involve analysis of the "higher powers of mind," analysis of what Mr. Smith calls the "higher unity of the mental life"—matters which I have reserved (the latter expressly, in a passage, p. 355, which Mr. Smith does not seem to have noticed, the former by implication, see pp. 52, 53) for treatment in a later work. But I may say that my contention would *not* be that the "higher powers" and the "unity of our mental life," conceived as Mr. Smith seems to conceive them, have correlates on the physical side—an opinion which might indeed lead to the assumption of a *Seelenpunkt* in the brain—but that when these features of mind are conceived in such a way as to make them incapable of having physical correlates they are misconceived. I should not think of admitting that mind and matter are "complete opposites," nor do I conceive (with deference to Mr. Smith's contrary opinion) that Dr. Ward has finally established that fact in his Gifford Lectures.

Mr. Smith has misunderstood me when he says that I "contend that

as it [the principle of the conservation of energy] is an induction from experience '. . . it cannot be argued without fallacy that where physical events are accompanied by consciousness it must hold good just the same'". What I say is that *if* the principle of conservation is an induction from experience, then this follows; I do not commit myself at this point as to whether the principle of conservation is an induction from experience or in some sense a law of thought. I say moreover that the argument from the principle of conservation remains inconclusive "so long as the relations of mind and matter are conceived in ordinary dualistic terms". It should be carefully borne in mind that I am engaged throughout this section in attempting to estimate the exact value of the ordinary arguments for parallelism on an artificial assumption (the assumption underlying, it is true, almost all contemporary treatment of the problem): that mind and matter may possibly be two co-equal realities. The first step in metaphysics dissipates such a notion, and deprives us of our chief if not only ground for questioning the universal validity of the principle of conservation.

The misunderstanding just referred to has led Mr. Smith to suppose—since I later argue that the qualitative likeness and quantitative equivalence between cause and effect which are the basis of the principle of the conservation of energy constitute in some measure a rational bond between them—that I do not perceive the fundamental identity of the argument from the principle of conservation and that from the nature of the causal relation, and that my treatment of the two is not self-consistent. He denies moreover that the qualitative and quantitative relations between cause and effect constitute a rational connexion in the sense of Hume. On this point I confess that I have been somewhat impressed by Mr. Smith's criticisms. But I may point out that Hume's arguments are founded partly on the distinctness of cause and effect ("Every effect is a distinct event from its cause"), partly on their qualitative unlikeness (as where he argues that we could not know from the phenomenal qualities of bread that it would nourish). Now, if my words on page 149 are ambiguous and regrettable, appearing as they do to indicate a desire on my part to take up against Hume the cause of epistemological rationalism in its full extent, I think I make it plain on page 151 that my intention is not to question the validity of the former argument or to maintain that we could foresee in advance of experience either that a cause must have an effect at all or that it must have one connected with it by qualitative and quantitative relations; but to point out that the latter argument has since Hume's day, through the progress of molecular physics, lost its force, and that cause and effect do not now appear to us so "loose and separate," their relation such a bare juxtaposition of different things, as they appeared to him. Whether the qualitative and quantitative relations constitute a rational bond in the strict sense is another question, but the fact that Hume pointed to the supposed absence of qualitative likeness in proof of his view would seem to show that he was himself not altogether clear on the subject, and must be my excuse in case I have erred.

My chief concern, however, was not so much to maintain the existence of a rational connexion, as to refute the pretensions of those (of whom Mr. Smith seems to be one) who would draw from the absence of a rational connexion, if it be absent, the conclusion that causal relations between mental and physical events are exactly as intelligible and acceptable as the causal relations of physical events *inter se*. Even if it be not a necessity of thought, experience at least informs us that qualitative and quantitative relations are characteristic of causal connexions outside the body. These relations enable us in some sense to pass in thought from the cause to

the effect, they make the connexion between the two in a manner *plain*. Causal connexions between mental and physical events are not so much unthinkable as destitute of this sort of plainness. If it be true in any sense that we cannot "pass in thought from the physics of the brain to the facts of consciousness," then in that sense it is true that we *can* pass in thought from one physical event to another. The current plea that purely physical causation is just as unintelligible as causation between physical and mental is really an extravagance. It rests on the superstitious notion that there is something mysterious in the causal relation, an inner kernel or essence upon which experience throws no light; instead of experience yielding (if we could but exhaust its possibilities, make all the possible perceptions in the case actual) all there is to be known about the relation. I cannot acquit Mr. Smith of holding this anti-Humian view. He says that equivalence is "merely an empirical datum or sign enabling us to determine with greater certainty which sequences we may name causal," but that it "yields no real insight into the actual nature of the causal connexion". How does this differ from the notion of a 'real tie'? Fancy the causal relation to have an "actual nature" into which experience "yields no real insight," and purely physical and (if I may so say) physico-mental causation are in this respect of course exactly on a par. But grant that causation is just what we find it in experience to be and no more, and the possibility of establishing equivalences in most cases of physical causation is a reason, and a strong reason, for doubting the legitimacy of a view which would make it forever impossible to establish equivalences in the case of brain-events. Two further considerations come in to clinch the argument. (1) Causal connexions *without* equivalence are merely uniform sequences, and uniform sequences between mental events and brain-events are obvious facts on any view. (2) With the first step in metaphysics matter disappears as a possible agency working from without upon consciousness, and the doubt above referred to becomes a certainty.

I object to Mr. Smith's statement that my metaphysical theory "rests upon the assumption that all experience is purely subjective". I hold all experience to be purely subjective (that is, mental, and the mind that of the individual) in its existence and felt quality, but not in its significance. And it seems to me a serious misrepresentation when Mr. Smith says that I offer as a sufficient proof of this merely the facts of colour-blindness. I believe those facts *to be* a sufficient proof, for if in perception we directly apprehend the qualities of independently existing objects it should be impossible for any one ever to apprehend them as other than they are, and the theory of a diseased form of direct apprehension really will not work. Mr. Smith says, "The incapacity of a man colour-blind to see the colour another man sees is no proof that he would not if he could see". But he can see; a man colour-blind is not blind; only he sees objects as they are not, which should be impossible if vision is a direct apprehension of things without the mind. The misrepresentation to which I refer consists, however, in suggesting that my view of the subjectivity of experience in the sense defined is based on a bare reference to the facts of colour-blindness, when in fact it is elaborately justified in the long chapter on the nature of the Physical World. Nor can I feel that Mr. Smith has correctly stated the "general argument" of that chapter when he summarises it in the words, "that our perceptions are subjective because they vary not only with the object but with the retinal impression and the brain-state". Even in this form I hold that the argument proves the subjectivity of our perceptions in the sense defined. For, to be objective, they must vary solely with the object. The least admixture of variation with anything else in so far

adulterates their objectivity with a subjective element. But my argument really is that our perceptions are shown by the facts of physiological psychology *not to vary with the object at all*, but to vary immediately solely with the brain-state. That the brain-state is itself subjective, *i.e.*, simply another (possible) perception, in no way diminishes the force of this striking fact. How I can immediately perceive an extra-bodily object by means of a perception which varies directly solely with a brain-event, I wish Mr. Smith would explain.

Mr. Smith says that my method of escaping solipsism is "high-handed". My thesis is that everybody's method of escaping solipsism is high-handed. Nobody does it either by experience of other minds or by sound reasoning from facts about his own, as I have sufficiently shown (pp. 217, 218), but solely by the aid of an instinct of transcendence which leads us all to help ourselves liberally, in a thousand ways, to extra-mental realities to which we have no strict logical right. Mr. Smith's suspicion that this doctrine of a transcending instinct is an after-thought, made necessary by my erroneous view of the "essential immanence" of consciousness (I do not like the phrase, since it seems to imply cognitive immanence), is not in accord with the fact. The doctrine is the logical 'other side' of a theory which, as Mr. Smith perceives, derives its inspiration from Hume. Readers not so convinced as Mr. Smith that "Hume has failed" will find additional data as to how I conceive the working of this instinct in my reply to Prof. Bakewell in the *Philosophical Review* for May, 1904, and in an article in the *Journal of Philosophy* for 12th May, 1904, entitled 'A Naturalistic Theory of the Reference of Thought to Reality'.

I am, Sir, yours, etc.,
C. A. Strong.

ON A SUPPOSED QUOTATION FROM KANT.

Dear Mr. Editor,—In the April number of Mind (p. 220), the sentence "The understanding makes Nature, but does not create it" is ascribed to Kant. Might I ask whether Mr. Underhill, or any other of your readers, could give me the reference to the passage in Kant where it occurs? The phrase has been repeatedly quoted as Kant's during the last twenty years, and I fear I have made use of it myself. But I have recently searched in vain for it throughout Kant's works, and have begun to suspect that the epigram was made in Oxford. At least, Green is the earliest writer to whom I can trace it; and I should be glad to be set right as to its origin. The strange thing is that Green gives the passage in German: "'Macht zwar Verstand die Natur, aber er schafft sie nicht.' The understanding 'makes' Nature, but out of a material which it does not make" (*Prolegomena*, §11; Mind, 1882, p. 9). The nearest thing to this which I have myself found in Kant is in the first edition of the *Kritik*, (pp. 126-127): "Der Verstand . . . ist selbst die Gesetzgebung für die Natur, d. i. ohne Verstand würde es überall nicht Natur . . . geben. . . . Der Verstand ist selbst der Quell der Gesetze der Natur, und mithin der formalen Einheit der Natur." Is it possible that the rather curious phrase quoted by Green can have been taken from some other source than Kant, or even set down by Green himself as an epigrammatic statement of Kant's doctrine, and then—its origin forgotten—have got mixed up with extracts from Kant's own writings? On this question it is useless to speculate, as some of your readers may perhaps be able to show that the sentence is really a quotation from Kant himself.

Yours faithfully,
W. R. Sorley.

MIND

A QUARTERLY REVIEW

OF

PSYCHOLOGY AND PHILOSOPHY

I.—HUMANISM AND TRUTH.

By William James.

Receiving from the Editor of Mind an advance proof of Mr. Bradley's article for July on 'Truth and Practice,' I understand this as a hint to me to join in the controversy over 'Pragmatism' which seems to have seriously begun. As my name has been coupled with the movement, I deem it wise to take the hint, the more so as in some quarters greater credit has been given me than I deserve, and probably undeserved discredit in other quarters falls also to my lot.

First, as to the word 'pragmatism'. I myself have only used the term to indicate a method of carrying on abstract discussion. The serious meaning of a concept, says Mr. Peirce, lies in the concrete difference to some one which its being true will make. Strive to bring all debated conceptions to that 'pragmatic' test, and you will escape vain wrangling: if it can make no practical difference which of two statements be true, then they are really one statement in two verbal forms; if it can make no practical difference whether a given statement be true or false, then the statement has no real meaning. In neither case is there anything fit to quarrel about: we may save our breath, and pass to more important things.

All that the pragmatic method implies, then, is that truths should *have* practical consequences. In England the word has been used more broadly, to cover the notion that the truth of any statement *consists* in the consequences, and

particularly in their being good consequences. Here we get beyond affairs of method altogether; and since my pragmatism and this wider pragmatism are so different, and both are important enough to have different names, I think that Mr. Schiller's proposal to call the wider pragmatism by the name of 'Humanism' is excellent and ought to be adopted. The narrower pragmatism may still be spoken of as the 'pragmatic method'.[1]

I have read in the past six months many hostile reviews of Schiller's and Dewey's publications; but with the exception of Mr. Bradley's elaborate indictment, they are out of reach where I write, and I have largely forgotten them. I think that a free discussion of the subject on my part would in any case be more useful than a polemic attempt at rebutting these criticisms in detail. Mr. Bradley in particular can be taken care of by Mr. Schiller. He repeatedly confesses himself unable to comprehend Schiller's views, he evidently has not sought to do so sympathetically, and I deeply regret to say that his laborious article throws, for my mind, absolutely no useful light upon the subject. It seems to me on the whole an *ignoratio elenchi*, and I feel free to disregard it altogether.

The subject is unquestionably difficult. Messrs. Dewey's and Schiller's thought is eminently an induction, a generalisation working itself free from all sorts of entangling particulars. If true, it involves much restatement of traditional notions. This is a kind of intellectual product that never attains a classic form of expression when first promulgated. The critic ought therefore not to be too sharp and logic-chopping in his dealings with it, but should weigh it as a whole, and especially weigh it against its possible alternatives. One should also try to apply it first to one instance, and then to another to see how it will work. It seems to me that it is emphatically not a case for instant execution, by conviction of intrinsic absurdity or of self-contradiction, or by caricature of what it would look like if reduced to skeleton shape. Wide generalisations in science always meet with these summary

[1] If further egotism be in order, I may say that the account of truth given by Messrs. Sturt and Schiller and by Prof. Dewey and his school (who never use the word pragmatism) goes beyond any theorising which I personally had ever indulged in until I read their writings. After reading these, I feel almost sure that these authors are right in their main contentions; but the originality is wholly theirs, and I can hardly recognise in my own humble doctrine that concepts are teleological instruments anything considerable enough to warrant my being called, as I have been, the 'father' of so important a movement forward in philosophy.

refutations in their early days: but they outlive them, and the refutations then sound oddly antiquated and scholastic. I cannot help suspecting that the humanistic theory is going through this kind of would-be refutation at present.

As I understand the theory, it owes its being to the breakdown which the last fifty years have brought about in the older notions of scientific truth. "God geometrises," it used to be said; and it was believed that Euclid's elements literally reproduced his geometrising. There is an eternal and unchangeable 'Reason'; and its voice was supposed to reverberate in *Barbara* and *Celarent*. So also of the 'laws of Nature,' physical and chemical, so of natural history classifications—all were supposed to be exact and exclusive duplicates of pre-human archetypes buried in the structure of things, to which the spark of divinity hidden in our intellect enables us to penetrate. The anatomy of the world is logical, and its logic is that of a university professor, it was thought. Up to about 1850 almost every one believed that sciences expressed truths that were exact copies of a definite code of non-human realities. But the enormously rapid multiplication of theories in these latter days has well-nigh upset the notion of any one of them being a more literally objective kind of thing than another. There are so many geometries, so many logics, so many physical and chemical hypotheses, so many classifications, each one of them good for so much and yet not good for everything, that the notion that even the truest formula may be a human device and not a literal transcript has dawned upon us. We hear scientific laws now treated as so much 'conceptual shorthand,' true so far as they are useful but no farther. Our mind has become tolerant of symbol instead of reproduction, of approximation instead of exactness, of plasticity instead of rigor. 'Energetics,' measuring the bare face of sensible phenomena so as to describe in a single formula all their changes of 'level,' is the last word of this scientific humanism, which indeed leaves queries enough outstanding as to the reason for so curious a congruence between the world and the mind, but which at any rate makes our whole notion of scientific truth more flexible and genial than it used to be.

It is to be doubted whether any theoriser to-day, either in mathematics, logic, physics or biology, conceives himself to be literally re-editing processes of Nature or thoughts of God. The main forms of our thinking, the separation of subjects from predicates, the negative, hypothetic and disjunctive judgments, are purely human habits. The ether, as Lord

Salisbury said, is only a noun for the verb to undulate, and many of our theological ideas are admitted, even by those who call them 'true,' to be humanistic in like degree.

I fancy that these changes in the current notions of truth are what originally gave the impulse to Messrs. Dewey's and Schiller's views. The suspicion is in the air nowadays that the superiority of one of our formulas to another may not consist so much in its literal 'objectivity,' as in subjective qualities like its usefulness, its 'elegance' or its congruity with our residual beliefs. Yielding to these suspicions, and generalising, we fall into something like the humanistic state of mind. Truth we conceive to mean anywhere, not duplication, but addition; not the constructing of inner copies of already complete realities, but rather the reacting on imperfect realities so as to bring about a clearer result. Obviously this state of mind is at first full of vagueness and ambiguity. 'Reaction' is a vague term; it must at any rate cover conceptions and logical arrangements. 'Clearer' is vaguer still. Truth must bring clear thoughts, as well as clear the way to action. 'Reality' is the vaguest term of all. The only way to test such a programme at all is to apply it to the various types of truth, in the hope of reaching an account that shall be more precise. Any hypothesis that forces such a review upon one has one great merit, even if in the end it prove invalid: it gets us better acquainted with the total subject. To give the theory plenty of 'rope' and see if it hangs itself eventually is better tactics than to choke it off at the outset by abstract accusations of self-contradiction. I think therefore that a decided effort at sympathetic mental play with humanism is the provisional attitude to be recommended to the reader.

When I find myself playing sympathetically with humanism, something like what follows is what I end by conceiving it to mean.

Experience is a process that continually gives us new material to digest. We handle this intellectually by the apperceiving mass of beliefs of which we find ourselves already possessed, assimilating, rejecting, or rearranging in different degrees. Some of the apperceiving ideas are recent acquisitions of our own, but most of them are common-sense traditions of the race. There is probably not a common-sense tradition, of all those which we now live by, which was not in the first instance a genuine discovery, an inductive generalisation like those more recent ones of the atom, of inertia, of energy, of reflex action, or of fitness to survive.

The notions of one Time and of one Space as single continuous receptacles; the distinction between thoughts and things, matter and mind; between permanent subjects and changing attributes; the conception of classes with sub-classes within them; the separation of fortuitous from regularly caused connexions; surely all these were once definite conquests made at historic dates by our ancestors in their attempts to get the chaos of their crude individual experiences into a more shareable and manageable shape. They proved of such sovereign use as *Denkmittel* that they are now a part of the very structure of our mind. We cannot play fast and loose with them. No experience can upset them. On the contrary they apperceive every experience and assign it to its place.

To what effect? That we may the better foresee the course of our experiences, communicate with one another, and steer our lives by rule. Also that we may have a cleaner, clearer, more inclusive mental view.

The greatest common-sense achievement, after the discovery of one Time and one Space, is probably the concept of permanently existing things. When a rattle first drops out of the hand of a baby, he does not look to see where it has gone. Non-perception he accepts as annihilation until he finds a better belief. That our perceptions mean *beings*, beings that are there whether we hold them in our hands or not, becomes an interpretation so luminous of what happens to us that, once employed, it never gets forgotten. It applies with equal felicity to things and persons, to the objective and to the ejective realm. However a Berkeley, a Mill, or a Cornelius may criticise it, it *works;* and in practical life we never think of 'going back' upon it, or reading our incoming experiences in any other terms. We may, indeed, speculatively imagine a state of 'pure' experience before the hypothesis of permanent objects behind its flux had been framed; and we can play with the idea that some primeval genius might have struck into a different hypothesis. But we cannot positively imagine to-day what the different hypothesis could have been, for the category of trans-perceptual reality is now one of the foundations of our life. Our thoughts must still employ it, if they are to possess reasonableness and truth.

This notion of a *first* in the shape of a most chaotic pure experience which sets us questions, of a *second* in the way of fundamental categories, long ago wrought into the structure of our consciousness and practically irreversible, which define the general frame within which answers must fall, and of a

third which gives the detail of the answers in the shapes most congruous with all our present needs, is, as I take it, the essence of the humanistic conception. It represents experience in its pristine purity to be now so enveloped in predicates historically worked out that we can think of it as little more than an *Other*, of a *That*, which the mind, in Mr. Bradley's phrase, 'encounters,' and to whose stimulating presence we respond by ways of thinking which we call 'true' in proportion as they facilitate our activities and bring us outer power and inner peace. But whether the Other, the universal *That*, has itself any definite inner structure, or whether, if it have any, the structure resembles any of our predicated *whats*, this is a question which humanism leaves untouched. For us, at any rate, it insists, reality is an accumulation of our own intellectual inventions, and the struggle for 'truth' in our progressive dealings with it is always a struggle to work in new nouns and adjectives while altering as little as possible the old.

It is hard to see why either Mr. Bradley's own logic or his metaphysics should oblige him to quarrel with this conception. He might consistently adopt it *verbatim et literatim*, if he would, and simply throw his peculiar Absolute round it, following in this the good example of Prof. Royce. Bergson in France, and his disciples the physicists Wilbois and Leroy, are thorough-going humanists in the sense defined. Prof. Milhaud also appears to be one; and the great Poincaré misses it by only the breadth of a hair. In Germany the name of Simmel offers itself as that of a humanist of the most radical sort. Mach and his school and Hertz and Ostwald must be classed as humanists. The view is in the atmosphere and must be patiently discussed.

The best way to discuss it would be to see what the alternative might be. What is it indeed? Its critics make no explicit statement, Prof. Royce being the only one so far who has formulated anything definite. The first service of humanism to philosophy accordingly seems to be that it will probably oblige those who dislike it to search their own hearts and heads. It will force analysis to the front and make it the order of the day. At present the lazy tradition that truth is *adæquatio intellectûs et rei* seems all there is to contradict it with. Mr. Bradley's only suggestion is that true thought "must correspond to a determinate being which it cannot be said to make," and obviously that sheds no new light. What is the meaning of the word to 'correspond'? Where is the 'being'? What sort of things are

'determinations'? And what is meant in this particular case by 'not to make'?

Humanism proceeds immediately to refine upon the looseness of these epithets. We correspond in *some* way with anything with which we enter into any relations at all. If it be a thing, we may produce an exact copy of it, or we may simply feel it as an existent in a certain place. If it be a demand, we may obey it without knowing anything more about it than its push. If it be a proposition, we may agree by not contradicting it, by letting it pass. If it be a relation between things, we may act on the first one so as to bring ourselves out where the second one will be. If it be something inaccessible, we may substitute a hypothetical object for it, which, having the same consequences, will cipher out for us real results. In a general way we may simply *add our thought to it;* and if it *suffers the addition*, and the whole situation harmoniously prolongs and enriches itself, the thought will pass for true.

As for the whereabouts of the beings thus corresponded to, although they may be outside of the present thought as well as in it, humanism sees no ground for saying they are outside of finite experience itself. Pragmatically, their reality means that we submit to them, take account of them, whether we like to or not, but this we must perpetually do with experiences other than our own. The whole system of what the present experience must correspond to 'adequately' may be continuous with the present experience itself. Reality, so taken as experience other than the present, might be either the legacy of past thought or the content of thought to come. Its determinations for us are in any case the adjectives which our acts of judging fit to it, and those are essentially humanistic things.

To say that our thought does not 'make' this reality means pragmatically that if our own particular thought were annihilated the reality would still be there, though possibly it might be there in a shape that would lack something that our thought supplies. That reality is 'independent' means that there is something in every experience that escapes our arbitrary control. If it be a sensible experience it coerces our attention; if a sequence, we cannot invert it; if we compare two terms we can come to only one result. There is a push, an urgency, within our very experience, against which we are on the whole powerless, and which drives us in a direction that is the destiny of our belief. That this drift of experience itself is due to something independent of all possible experience may or may not be true. There may

or may not be an extra-experiential Ding-an-Sich that keeps the ball rolling, or an Absolute that lies eternally behind all the successive determinations which human thought has made. But within our experience *itself* at any rate, humanism says, some determinations show themselves as being independent of others; some questions, if we ever ask them, can only be answered in one way; some beings, if we ever suppose them, must be supposed to have existed previously to the supposing; some relations, if they exist ever, must exist as long as their terms exist.

Truth thus means, according to humanism, the relation of less fixed parts of experience (predicates) to other relatively more fixed parts (subjects); and we are not required to seek it in a relation of experience as such to anything beyond itself. We can stay at home, for our behaviour as experients is hemmed in on every side. The forces both of advance and of resistance are our own mental objects, and the notion of truth as something opposed to waywardness or licence inevitably grows up solipsistically inside of every human life.

So obvious is all this that a common charge against the humanistic authors 'makes me tired'. "How can a Deweyite discriminate sincerity from bluff?" was a question asked at a philosophic meeting where I reported on Dewey's *Studies*. "How can the mere [1] pragmatist feel any duty to think truly?" is the objection urged by Prof. Royce. Mr. Bradley in turn says that if a humanist understands his own doctrine, "he must hold any idea, however mad, to be the truth, if any one will have it so". And Prof. Taylor describes pragmatism as believing anything one pleases and calling it truth.

Such a shallow sense of the conditions under which men's thinking actually goes on seems to me most surprising. These critics appear to suppose that, if left to itself, the rudderless raft of our experience must be ready to drift anywhere or nowhere. Even though there were compasses on board, they seem to say, there would be no pole for them to point to. There must be absolute sailing-directions, they insist, decreed from outside, and an independent chart of the voyage added to the 'mere' voyage itself, if we are ever to make a port. But is it not obvious that even though there be such absolute sailing-directions in the shape of pre-human standards of Truth that we *ought* to follow, the only guarantee that we shall in fact follow them must lie in our human

[1] I know of no 'mere' pragmatist, if *mereness* here means, as it seems to, the denial of all concreteness to the pragmatist's thought.

equipment. The 'ought' would be a *brutum fulmen* unless there were a felt grain inside of our experience that conspired. As a matter of fact the devoutest believers in absolute standards must admit that men fail to obey them. Waywardness is here, in spite of the eternal prohibitions, and the existence of any amount of reality *ante rem* is no warrant against unlimited error *in rebus* being incurred. The only real guarantee we have against licentious thinking is the circumpressure of experience itself, which gets us sick of concrete errors, whether there be a trans-empirical reality or not. How does the partisan of absolute reality know what this orders him to think? He cannot get direct sight of the Absolute; and he has no means of guessing what it wants of him except by following the humanistic clues. The only truth that he himself will ever practically *accept* will be that to which his finite experiences lead him of themselves. The state of mind which shudders at the idea of a lot of experiences left to themselves, and that augurs protection from the sheer name of an Absolute, as if, however inoperative, that might still stand for a sort of ghostly security, is like the mood of those good people who, whenever they hear of a social tendency that is damnable, begin to redden and to puff, and say "Parliament or Congress ought to make a law against it," as if an impotent decree would give relief.

All the *sanctions* of a law of truth lie in the very texture of experience. Absolute or no Absolute, the concrete truth *for us* will always be that way of thinking in which our various experiences most profitably combine.

And yet, the opponent obstinately urges, your humanist will always have a greater liberty to play fast and loose with truth than will your believer in an independent realm of reality that makes the standard rigid. If by this latter believer he means a man who pretends to know the standard and who fulminates it, the humanist will doubtless prove more flexible; but no more flexible than the absolutist himself if the latter follows (as fortunately our present-day absolutists do follow) empirical methods of inquiry in concrete affairs. To consider hypotheses is surely always better than to dogmatise *ins Blaue hinein*.

Nevertheless this probable flexibility of temper in him has been used to convict the humanist of sin. Believing as he does, that truth lies *in rebus*, and is at every moment our own line of most propitious reaction, he stands for ever debarred, as I have heard a learned colleague say, from trying to convert opponents, for does not their view, being *their* most propitious momentary reaction, already fill the

bill? Only the believer in the *ante rem* brand of truth can on this theory seek to make converts without self-stultification. But can there be self-stultification in urging any account whatever of truth? Can the definition ever contradict the deed? "Truth is what I feel like saying"—suppose that to be the definition. "Well, I feel like saying that, and I want you to feel like saying it, and shall continue to say it until I get you to agree." Where is there any contradiction? Whatever truth may be said to be, that is the kind of truth which the saying can be held to carry. The *temper* which a saying may comport is an extra-logical matter. It may indeed be hotter in some individual absolutist, but it need not be so in another. And the humanist, for his part, is perfectly consistent in compassing sea and land to make one proselyte, if his nature be enthusiastic enough.

"But how *can* you be enthusiastic over any view of things which you know to have been partly made by yourself, and which is liable to alter during the next minute? How is any 'heroic devotion' to the ideal of truth possible under such paltry conditions?"

This is just another of those objections by which the anti-humanists show their own comparatively slack hold on the realities of the situation. If they would only follow the pragmatic method and ask: "What is truth *known-as?* What does its existence stand for in the way of concrete goods?"—they would see that the name of it is the *Inbegriff* of almost everything that is valuable in our lives. The true is the opposite of whatever is instable, of whatever is practically disappointing, of whatever is useless, of whatever is lying and unreliable, of whatever is unverifiable and unsupported, of whatever is inconsistent and contradictory, of whatever is artificial and eccentric, of whatever is unreal in the sense of being of no practical account. Here are pragmatic reasons with a vengeance why we should turn to truth —truth saves us from a world of that complexion. What wonder that its very name awakens loyal feeling! In particular what wonder that all little provisional fool's paradises of belief should appear contemptible in comparison with its bare pursuit! When absolutists reject humanism because they feel it to be untrue, that means that the whole habit of their mental needs is wedded already to a different view of reality, in comparison with which the humanistic world seems but the whim of a few irresponsible youths. Their own subjective apperceiving mass is what speaks here in the name of the eternal natures and bids them reject our hu-

manism—as they apprehend it. Just so with us humanists, when we condemn all noble, clean-cut, fixed, eternal, rational, temple-like systems of philosophy. These contradict the temperament of Nature, as our dealings with Nature and our habits of thinking have so far brought us to conceive it. They seem oddly personal and artificial, even when not bureaucratic and professional in an absurd degree. We turn from them to the great unpent and unstayed wilderness of Truth as we feel it to be constituted, with as good a conscience as rationalists are moved by when they turn from our wilderness into their neater and cleaner intellectual abodes.

This is surely enough to show that the humanist does not ignore the character of objectivity and independence in truth. Let me turn next to what his opponents mean when they say that to be true, our thoughts must 'correspond'.

The vulgar notion of correspondence here is that the thoughts must *copy* the reality—cognitio fit per *assimiliationem* cogniti et cognoscentis; and philosophy, without having ever fairly sat down to the question, seems to have instinctively accepted this idea: propositions are held true if they copy the eternal thought; terms are held true if they copy extra-mental realities. Implicitly, I think that the copy-theory has animated most of the criticisms that have been made on humanism.

A priori, however, it is not self-evident that the sole business of our mind with realities should be to copy them. Let my reader suppose himself to constitute for a time all the reality there is in the universe, and then to receive the announcement that another being is to be created who shall know him truly. How will he represent the knowing in advance? What will he hope it to be? I doubt extremely whether it could ever occur to him to fancy it as a mere copying. Of what use to him would an imperfect second edition of himself in the newcomer's interior be? It would seem pure waste of a propitious opportunity. The demand would more probably be for something absolutely new. The reader would conceive the knowing humanistically, "the new comer," he would say, "must *take account of my presence by reacting on it in such a way that good would accrue to us both.* If copying be requisite to that end, let there be copying; otherwise not." The essence in any case would not be the copying, but the enrichment of the previous world.

I read the other day, in a book of Prof. Eucken's, a phrase, "*Die Erhöhung des vorgefundenen Daseins*," which

seems to be pertinent here. Why may not thought's mission be to increase and elevate, rather than simply to imitate and reduplicate, existence? No one who has read Lotze can fail to remember his striking comment on the ordinary view of the secondary qualities of matter, which brands them as 'illusory' because they copy nothing in the thing. The notion of a world complete in itself, to which thought comes as a passive mirror, adding nothing to fact, Lotze says is irrational. Rather is thought itself a most momentous part of fact, and the whole mission of the pre-existing and insufficient world of matter may simply be to provoke thought to produce its far more precious supplement.

'Knowing,' in short, may, for aught we can see beforehand to the contrary, be *only one way of getting into fruitful relations with reality*, whether copying be one of the relations or not.

It is easy to see from what special type of knowing the copy-theory arose. In our dealings with natural phenomena the great point is to be able to foretell. Foretelling, according to such a writer as Spencer, is the whole meaning of intelligence. When Spencer's 'law of intelligence' says that inner and outer relations must 'correspond,' it means that the distribution of terms in our inner time-scheme and space-scheme must be an exact copy of the distribution in real time and space of the real terms. In strict theory the mental terms themselves need not answer to the real terms in the sense of severally copying them, symbolic correspondence of terms being enough, if only dates and places be copied. But in our ordinary life the mental terms are images and the real ones are sensations, and the sensations are so often copied by the images, that we easily take copying of terms as well as of relations to be the natural significance of knowing. Meanwhile much, even of this common descriptive truth, is couched in verbal symbols. If our symbols *fit* the world, in the sense of determining our expectations rightly, they may even be the better for not copying its terms.

It seems obvious that the pragmatic account of all this routine of phenomenal knowledge is accurate. Truth here is a relation, not of our ideas to non-human realities, but of conceptual parts of our experience to sensational parts. Those thoughts are true which guide us to *beneficial interaction* with sensible particulars as they occur, whether they copy these in advance or not.

From the frequency of copying in the knowledge of phenomenal fact, copying has been supposed to be the essence of truth in matters rational also. Geometry and

logic, it has been supposed, must copy archetypal thoughts in the Creator. But in these abstract spheres there is no need of assuming archetypes. The mind is free to carve so many figures out of space, to make so many numerical collections, to frame so many classes and series, and it can analyse and compare so endlessly, that the very superabundance of the resulting ideas makes us doubt the 'objective' pre-existence of their models. It would be plainly wrong to suppose a God whose thought consecrated rectangular but not polar coordinates, or Jevons's notation but not Boole's. Yet if, on the other hand, we assume God to have thought in advance of every *possible* flight of human fancy in these directions, his mind becomes too much like a Hindoo idol with three heads, eight arms and six breasts, too much made up of superfœtation and redundancy for us to wish to copy it, and the whole notion of copying tends to evaporate from these sciences. Their objects can be better interpreted as created step by step by men, as fast as they successively conceived them.

If now it be asked how, if triangles, squares, square roots, genera, and the like, are but improvised human 'artefacts,' their properties and relations can be so promptly known to be 'eternal,' the humanistic answer is easy. If triangles and genera are of our own production we can keep them invariant. We can make them 'timeless' by expressly decreeing that time shall exert no altering effect, that they are abstracted from every corrupting associate and condition. But relations between invariant objects will themselves be invariant. Such relations cannot be happenings, for by hypothesis nothing shall happen to the objects. I have tried to show in the last chapter of my *Principles of Psychology* that they can only be relations of comparison. No one so far seems to have noticed my suggestion, and I am too ignorant of the development of mathematics to feel very confident of my own view. But if it were correct it would solve the difficulty perfectly. Relations of comparison are matters of direct inspection. As soon as mental objects are mentally compared, they are perceived to be either like or unlike. But once the same, always the same, once different, always different, under these timeless conditions. Which is as much as to say that truths concerning these man-made objects are necessary and eternal. We can change our conclusions only by changing our data first.

The whole fabric of the *a priori* sciences can thus be treated as a man-made product. As Locke long ago pointed out, these sciences have no immediate connexion with fact. Only

if a fact can be humanised by being identified with any of these ideal objects, what was true of the objects is now true also of the facts. The truth itself meanwhile was originally a copy of nothing; it was only a relation directly found between two artificial mental things.

We may now glance at some special types of knowing, so as to see better whether the humanistic account fits. On the mathematical and logical types we need not enlarge further, nor need we return at much length to the case of our descriptive knowledge of the course of nature. So far as this involves anticipation, though that may mean copying, it need, as we saw, mean little more than 'getting ready' in advance. But with many distant and future objects, our practical relations are to the last degree potential and remote. In no sense can we now get ready for the arrest of the Earth's revolution by the tidal brake, for instance; and with the past, though we suppose ourselves to know it truly, we have no practical relations at all. It is obvious that, although interests strictly practical have been the original starting-point of our search for true phenomenal descriptions, yet an intrinsic interest in the bare describing function has grown up. We wish accounts that shall be true, whether they bring collateral profit or not. The primitive function has developed its demand for mere exercise. This theoretic curiosity seems to be the characteristically human *differentia*, and humanism recognises its enormous scope. A true idea now means not only one that prepares us for an actual perception. It means also one that might prepare us for a merely possible perception, or one that, if spoken, would suggest possible perceptions to others, or suggest actual perceptions which the speaker cannot share. The *ensemble* of perceptions thus thought of as either actual or possible form a system which it is obviously advantageous to us to get into a stable and consistent shape; and here it is that the common-sense notion of permanent beings finds triumphant use. Beings acting outside of the thinker explain, not only his actual perceptions, past and future, but his possible perceptions and those of every one else. Accordingly they gratify our theoretic need in a supremely beautiful way. We pass from our immediate actual through them into the foreign and the potential, and back again into the future actual, accounting for innumerable particulars by a single cause. As in those circular panoramas, where a real foreground of dirt, grass, bushes, rocks and a broken-down cannon is enveloped by a canvas picture of sky and earth and of a raging battle, continuing the foreground so cunningly

that the spectator can detect no joint; so these conceptual objects added to our present perceptual reality fuse with it into the whole universe of our belief. In spite of all Berkeleyan criticism, we do not doubt that they are really there. Though our discovery of any one of them may only date from now, we unhesitatingly say that it not only *is*, but *was* there, if, by so saying, the past appears connected more consistently with what we feel the present to be. This is historic truth. Moses wrote the Pentateuch, we think, because if he didn't all our religious habits will have to be undone. Julius Cæsar was real, or we can never listen to history again. Trilobites were once alive, or all our thought about the strata is at sea. Radium, discovered only yesterday, must always have existed, or its analogy with other natural elements, which are permanent, fails. In all this, it is but one portion of our beliefs reacting on another so as to yield the most satisfactory total state of mind. That state of mind, we say, sees truth.

Of course, if you take the satisfactoriness concretely, as something felt by you now, and if, by truth, you mean truth taken abstractly and verified in the long run, you cannot make them equate, for it is notorious that the temporarily satisfactory is often false. Yet at each and every concrete moment, truth for each man is what that man 'troweth' with the maximum of satisfaction to himself; and similarly, abstract truth, truth verified by the long run, and abstract satisfactoriness, long-run satisfactoriness, coincide. If, in short, we compare concrete with concrete and abstract with abstract, the true and the satisfactory do mean the same thing. I suspect that a certain muddling of matters hereabouts is what makes the general philosophic public so impervious to humanism's claims.

The fundamental fact about our experience is that it is a process of change. For the 'trower' at any moment, truth, like the visible area round a man walking in a fog, or like what George Eliot calls "the wall of dark seen by small fishes' eyes that pierce a span in the wide Ocean," is an objective field which the next moment enlarges and of which it is the critic, and which then either suffers alteration or is continued unchanged. The critic sees both the first trower's truth and his own truth, compares them with each other, and verifies or confutes. *His* field of view is the reality independent of that earlier trower's thinking with which that thinking ought to correspond. But the critic is himself only a trower; and if the whole process of experience should terminate at that instant, there would be no otherwise known

independent reality with which *his* thought might be compared.

The immediate in experience is always provisionally in this situation. The humanism, for instance, which I see and try so hard to defend, is the completest truth attained from my point of view up to date. But, owing to the fact that all experience is a process, no point of view can ever be *the* last one. Every one is insufficient and off its balance, and responsible to later points of view than itself. You, occupying some of these later points in your own person, and believing in the reality of others, will not agree that my point of view sees truth positive, truth timeless, truth that counts, unless they verify and confirm what it sees.

You generalise this by saying that any opinion, however satisfactory, can count positively and absolutely as true only so far as it agrees with a standard beyond itself; and if you then forget that this standard perpetually grows up endogenously inside the web of the experiences, you may carelessly go on to say that what distributively holds of each experience, holds also collectively of all experience, and that Experience as such and in its totality owes whatever truth it may be possessed of to its correspondence with Absolute Realities outside of its own being. This evidently is the popular and traditional position. From the fact that finite experiences must draw support from one another, philosophers pass to the notion that experience *überhaupt* must need an absolute support. The denial of such a Notion by Humanism lies probably at the root of most of the dislike which it incurs.

But is this not the globe, the elephant and the tortoise over again? Must not something end by supporting itself? Humanism is willing to let finite experience be self-supporting. Somewhere Being must immediately breast **No**nentity. Why may not the advancing front of experience, carrying its immanent satisfactions and dissatisfactions, cut against the black inane as the luminous orb of the moon cuts the cærulean abyss? Why should anywhere the world be absolutely fixed and finished? And if reality genuinely grows, why may it not grow in these very determinations which here and now are made?

In point of fact it actually seems to grow by our mental determinations, be these never so true. Take the 'great bear' or 'dipper' constellation in the Heavens. We call it by that name, we count the stars and call them seven, we say they were seven before they were counted, and we say

that whether any one had ever noted the fact or not, the dim resemblance to a long-tailed animal was always truly there. But what do we mean by this projection into past eternity of recent human ways of thinking? Did an 'absolute' thinker actually do the counting, tell off the stars upon his standing number-tally, and make the bear-comparison, silly as the latter is? Were they explicitly seven, explicitly bear-like, before the human witness came? Surely nothing in the truth of the attributions drives us to think this. They were only implicitly or virtually what we call them, and we human witnesses first explicated them and made them 'real'. A fact virtually pre-exists when every condition of its realisation save one is already there. In this case the condition lacking is the act of the counting and comparing mind. But the stars (once the mind considers them) themselves dictate the result. The counting in no wise modifies their previous nature, and, they being what and where they are, the count cannot fall out differently. It could then *always* be made. *Never* could the number seven be questioned, *if the question once were raised.*

We have here a quasi-paradox. Undeniably something comes by the counting that was not there before. And yet that something was *always true.* In one sense you create it, and in another sense you *find* it. You have to treat it as being true already, the moment you come to treat the matter at all.

Our stellar attributes must always be called true, then; yet none the less are they genuine additions made by our intellect to the world of fact. Not additions of consciousness only, but additions of 'content'. They copy nothing that pre-existed, yet they agree with what pre-existed, fit it, amplify it, relate and connect it, build it out. It seems to me that humanism is the only theory that builds this case out in the good direction, and this case stands for innumerable other kinds of case. In all such cases, odd as it may sound, our judgment may actually be said to retroact and to enrich the past.

Our judgments at any rate change the character of *future* reality by the acts to which they lead. Where these acts are acts expressive of trust,—trust, *e.g.*, that a man is honest, that our health is good enough, or that we can make a successful effort—which acts may be a needed antecedent of the trusted things becoming true, Prof. Taylor says[1] that our

[1] In an article criticising Pragmatism (as he conceives it) in the *McGill University Quarterly* for this Spring (Montreal, 1904).

trust is at any rate *untrue when it is made, i.e.*, before the action; and I seem to remember that he disposes of anything like a faith in the general excellence of the Universe (making the faithful person's part in it at any rate more excellent) as a 'lie in the soul'. But the pathos of this expression should not blind us to the complication of the facts. I doubt whether Prof. Taylor would himself be in favour of practically handling trusters of these kinds as liars. Future and present really mix in such emergencies, and one can always escape lies in them by using hypothetic forms. But Mr. Taylor's attitude suggests such absurd possibilities of practice that it seems to me to illustrate beautifully how self-stultifying the conception of a truth that shall merely register a standing fixture may become. Theoretic truth, truth of passive copying, sought in the sole interests of copying as such, not because copying is *good for something*, but because copying ought *schlechthin* to be, seems, if you look at it coldly, to be an almost preposterous ideal. Why should the universe, existing in itself, also exist in copies? How *can* it be copied in the solidity of its objective fulness? And even if it could, what would the object be? "Even the hairs of your head are numbered." Doubtless they are, virtually; but why, as an absolute proposition, *ought* the number to become actually known? Surely knowing is only one way of interacting with reality and adding to its effect. It covers many different relations. That copying is often one of them humanism cordially admits.

I am leaving many objections for a possible future treatment, and I am aware that my paper has been rambling enough. But the whole subject is inductive, and sharp logic is hardly yet in order. My great trammel has been the non-existence of any definitely stated alternative on my opponents' part. It may conduce to clearness if I recapitulate, in closing, what I conceive the main points of humanism to be. They are these:—

1. An experience, perceptual or conceptual, must conform to reality in order to be true.

2. By 'reality' humanism means nothing more than the other conceptual or perceptual experiences with which a given present experience may find itself in point of fact mixed up.

3. By 'conforming' humanism means taking account-of in such a way as to gain an intellectually and practically satisfactory result.

4. To 'take account-of' and to be 'satisfactory' are terms that admit of no definition, so many are the ways in which these requirements can practically be worked out.

5. Vaguely and in general, we take account of a reality by *preserving* it in as unmodified a form as possible. But, to be then satisfactory, it must not contradict other realities outside of it which claim also to be preserved. That we must preserve all the experience we can and minimise contradiction in what we preserve, is about all that can be said in advance.

6. The two facts, that experiences, conceptual as well as perceptual, claim preservation and yet interfere with one another, is the ground of what is called the 'objectivity' or independence of the reality to which the present experience must conform.

7. The truth that the conforming experience embodies may be a positive addition to the previous reality, and later judgments may have to conform to *it*. Yet, virtually at least, it may have been true previously. Pragmatically, virtual and actual truth mean the same thing: the possibility of only one answer, *when once the question is raised.*

II.—MIND AND BODY IN RECENT PSYCHOLOGY.[1]

By A. E. Taylor.

The aim of this paper may be stated in a sentence: it is a defence and a modified restatement of the old doctrine of Interaction as, at present, the most satisfactory theory of the connexion between body and mind. Not, of course, that Interaction is without difficulties, which I have no desire to make light of, or that it is necessarily tenable as the last word of Metaphysics. I shall claim rather that the difficulties of the theory are in principle those which must arise in any case of apparently transeunt action of one thing on another, whereas the now more popular doctrine of Parallelism complicates the problem by the introduction of fresh and formidable difficulties due to gratuitous metaphysical hypotheses. Much of my argument will proceed on lines familiar enough to students of Mr. Bradley and Prof. Ward, but I shall attempt to give what is, so far as I know, an independent formulation of the Interaction view, and shall supplement my positive contention by a special examination of the positions taken up by three recent psychologists of eminence, Stout, Ebbinghaus and Münsterberg, all supporters of some form of the parallelistic hypothesis. In the present state of psychological opinion a defence of Interaction may appear reactionary; yet there must be a future for a doctrine which counts among its more recent adherents such metaphysicians and psychologists as Lotze, Bradley, Ward and James. I may so far anticipate here the results which I hope to establish as to call attention to two special features of the doctrine presently to be defended which I believe to be essential to a sound theory and from neglect of which most

[1] Read (in substance) before the Oxford Philosophical Society, 4th May, 1902. For a briefer statement of the views here advocated see my *Elements of Metaphysics*, bk. iv., c. ii. The date of composition will explain why there is neither in this paper nor in my book any reference to Dr. Strong's valuable work, *Why the Soul has a Body*.

forms of the Interaction hypothesis have fallen into disfavour. (1) Our doctrine will attempt to harmonise the acceptance of Interaction as the best working hypothesis in Psychology with all that is true in the epistemological arguments for regarding body and mind as the double presentation of a single reality. (2) And our doctrine will be explicitly put forward *as* working hypothesis and not as ultimate metaphysical truth. At the same time we shall contend that any theory of the connexion between mind and body must be working hypothesis, and that, in particular, the attempts which have frequently been made to treat the rival Parallelistic theory as if it were an integral part of Idealist Metaphysics are no better than an *ignoratio elenchi*.

I.

In dealing with our problem we cannot be too careful to begin with a precise understanding of the question which any theory of mind and body has to answer. It is, of course, clear that the question how mind and body are related presupposes the previous recognition of some distinction between the two; only from the standpoint of some kind of relative dualism has our problem any meaning. And it is fundamental to observe that this distinction between mind and body, whether as two things or as two aspects of one thing, cannot arise so long as we are engaged exclusively in the interpretation of our own individual experience. I, as I am for myself in direct self-experience, am neither body nor mind nor a composite of the two. I am just I, a complex of significant purposive feeling, a being that feels and thinks and strives, in short, a *soul*, if I may be allowed to use a much-abused word without making any ulterior metaphysical implications. It is only when I come to describe my social environment, my fellow-men and my animal congeners, that I feel any need to split up the individual centre of experiences into two parts or two aspects, and when I ascribe the resulting duality of parts or aspects to my own self I am reinterpreting my direct experience in terms derived from my theories about my fellows. The nature of the motives leading to this dualistic construction, first of the life of my fellows and then of my own, and the steps by which it is effected, have been explained by more than one recent philosopher of note, and by none more brilliantly than by Avenarius in his masterly and delightful little work, *Der Menschliche Weltbegriff*. I borrow here from Avenarius and his successors in the same field of investigation just so much of their results as seems absolutely

necessary for our present purpose, and would refer the reader to my sources for fuller information and discussion.

All scientific interpretation of the facts of the world around us, as we cannot too frequently remind ourselves, is derived in the last resort from our practical need for industrial co-operation. Because we cannot normally win to our own ends in dealing with our environment without the concerted assistance of our fellows, we are permanently dependent for all practical success upon inter-communication. It is only by such inter-communication that the formation of concerted plans for dealing with the various situations to which we have from time to time to adjust ourselves is rendered possible. Out of this need for inter-communication arises the purpose of *describing* the facts of our situation in terms equally intelligible to every member of the co-operating group, and thus eventually the whole complex of the empirical sciences. Now there is ultimately only one way in which the purpose of intelligible description can be attained; the contents of the individual's experience can be communicated to other individuals just in so far as they can be reduced to complexes of presentations which have their equivalents in the experience of all other individuals of the same structure. In the real experience of any individual such complexes of presentations are, of course, never presented alone; they are always given in immediate unity with a mass of direct unanalysed feeling of satisfied or dissatisfied tendency which is in its very nature unique and incapable of communication from one individual to others. Thus all intercommunication and description presuppose the artificial abstraction and separation of one aspect of experience from another with which, in real fact, it stands in indissoluble unity. The systematic execution of our purpose to describe our common environment in terms equally intelligible to every member of the social group thus gives rise to the conception of the external world or physical order as a connected complex of sense-presentations. Whatever elements or aspects of a concrete individual experience refuse to admit of analysis into such presentational complexes are, from the nature of the case, no part of the common physical order or external world of the social group.

Now, on one side, our fellow-men, and other animal congeners, are obviously members of the physical order. They are, for our senses, like other things complexes of presented qualities, each of which has its equivalent in the experience of other members of the social group, and is thus capable of description. And we have, in our need for co-

operation, precisely the same motives for making the sensible behaviour of our fellows the subject of communication and description as we have in the case of other constituents of the physical order. On the other hand, our fellow-men are for our direct experience something more than describable complexes of presentations or constituents of the physical order. For I can only understand and achieve my own purposes in so far as I take into account their relation to the partly co-operating, partly conflicting purpose of the other members of my social group. Co-operation itself implies not only the presence of a common environment, capable of being perceived in equivalent ways and therefore of being described, but also the presence of other members of the social group with interests and purposes of their own akin to mine.[1] Hence, over and above their existence as describable complexes of presentations or members of the physical order, my fellow-men must have another kind of existence of the same sort as that of which I am directly aware in my own experience of myself as a centre of immediate feelings, cravings, and purposes. On this side of their existence they belong not to the physical order, but to a social, or in a wide sense of the term an ethical, order incapable of resolution into presentation-complexes and therefore essentially non-physical.

And the result won originally from analysis of the existence of my fellow-men is necessarily read back into my own interpretation of my own existence. As I directly experience myself, there is, as we have already seen, no duality of factors or elements in my experience. But with the need of mutual intercourse the case is at once altered. For the same purposes which lead me to describe my fellows, I need to describe myself in terms equally intelligible to all the members of my social group. Only so can I impart to another such knowledge of my own past or future behaviour as is requisite for effective co-operation. And the means of such description are ready to my hand. For each organ of my own body is, for the other sense-organs, just what the bodies of my fellows are, a complex of presented and describable sense-qualities. Hence I too come to be thought of as having a double existence. For my fellows' senses and for my own, I am a member of the physical order consisting ultimately of a complex of sense-presentations; for my own direct experience I am a striving, feeling being of an essentially non-physical type. With the development of human co-operation and

[1] I may now refer to the admirably lucid treatment of co-operation in Prof. Stout's *Groundwork of Psychology*, pp. 170-187.

the systematic description it necessitates, the original unity of direct self-experience is replaced by the dualism of myself as an object of description, my body, and myself as sentient and purposive, my mind.[1] Now arises the question how the two sundered aspects of the original unity are for science itself to be once more reunited, and this question constitutes our psychophysical problem of the connexion between body and mind.

At the outset it seems necessary to protest against one plausible contention that, if admitted, would completely exclude Interaction as a solution of the problem. On your own showing, it may be said, what, from one point of view and for descriptive purposes, is looked on as part of the physical order and called my body, is in actual fact the same reality which, as directly experienced, is called my mind. We are dealing not with two things but with two ways of regarding one thing, and there can therefore be no question of interaction. To reason thus would be to confuse the standpoint of real life with that of abstract scientific analysis. For scientific analysis the case inevitably stands thus. We have been driven, in the execution of the purposes which lie at

[1] It will be seen that I purposely avoid going into the difficult question of the logical character of Psychology as, in some sense, a descriptive science at the present stage of our argument. I would, however, offer the following suggestions towards the solution of the logical problem for what they may be worth: (1) The descriptions of analytic Psychology certainly stand on a different logical footing from those of the physical sciences. For they are constructed in terms of precisely that aspect of experience which is not directly communicable from one subject to others, and are therefore in principle unavailable for the practical purposes of co-operation and concerted reaction. So far as we actually use psychological hypotheses, if we ever do use them, for this practical purpose, they can be at best mere temporary stop-gaps for the eking out of an imperfect Anatomy and Physiology. The only ultimately consistent method of describing the conduct of our fellows in purely mechanical terms would be to reduce it to sequences of an exclusively physical kind. So far I think the conclusions reached by Prof. Münsterberg in his *Psychologie* unavoidable. (2) All description, however, is not necessarily of the strictly practical or physical-scientific type. Description may be undertaken in the interests of æsthetic or historical interpretation, and in that case must involve the use of teleological categories, and must be capable of extension so as *indirectly* to include the non-physical in its scope (*Cf. Elements of Metaphysics*, bk. iv., c. i., pp. 301-302). It is, I would suggest, in such æsthetically and historically motived description that we must look for the proper and peculiar subject-matter of Psychology. (3) The extent to which Psychology is of practical use for pedagogic, juristic and psychiatrical purposes is commonly exaggerated in the current literature of the subject from a natural confusion between Psychology and direct personal insight into individual character. Here again I find myself in complete accord with Prof. Münsterberg.

the root of scientific description, to exclude certain aspects of real life from our conception of the physical order, and to relegate them to a second non-physical or psychical realm. The problem now arises how to bring these two realms of the physical and the psychical once more into some sort of connexion. To attempt the solution of this problem by simply reverting to the standpoint of immediate experience, as it was before the creation of the concept of a physical order, would be to undo at a stroke the whole previous work of our physical scientific constructions. From the standpoint of immediate experience there can be no problem of the connexion between the physical and the psychical, precisely because both the physical and the psychical are *entia rationis*, mere artificial constructions of our own analytic intellect. From the standpoint of the scientific reconstruction of experience, on the other hand, the problem, as Münsterberg well puts it, is not to find *the* connexion between the physical and the psychical, but to invent *a* connexion in harmony with the general aims of scientific description. Whether this object is best secured by a hypothesis of parallelism or by one of interaction can only be decided by the detailed examination of the alternative; there is no *a priori* philosophical ground for preferring one solution to the other.

I may perhaps make my point clearer by restating it in the following way. For my direct experience of my own "inner life" my body is certainly the same thing as my mind, or rather is a subordinate aspect of the teleological unity which, as a whole, I call my mind. For it is simply a name for the complex of those purposive changes of state which take place with a regularity that is, within the limits of our powers of observation, uniform, and can therefore be apprehended and described in general terms without insight into the incommunicably individual character of the complete purposive processes to which they are always in actual fact subservient. Thus we should be sufficiently near the truth if we were to say that my body, as I directly experience it, is the relatively most fixed and regular portion of my system of mental *habits*. But for psychological and psychophysical science the case is entirely different. Psychology and Psychophysics alike presuppose the previous creation, for descriptive purposes, of the conception of the physical order as a reciprocally interconnected system of mechanically determined changes. When once we have come, under the influences previously described, to conceive thus of the bodies of our fellows and ourselves as physical objects capable of direct description in general terms, it inevitably follows that all that is unique and individual in

our experienced life, *i.e.*, all initiation of *fresh* purposive reactions, has to be relegated to a psychical order falling outside the physical. And as practical experience shows us that all real life involves the element of fresh purposive reaction at every instant, we are inevitably compelled to translate the purposiveness of concrete experience, for our scientific objects, into a *connexion* between two distinct things, a physical and a non-physical or psychical system. There is no logical contradiction in thus treating for the special purposes of our science as *two* things what from another point of view must be regarded as *one* thing; for, as we have all long ago learned, the same reality is rightly regarded as one or as many according to the nature of the special interests with which we approach it. Soul and body must for Psychology be two just because it is our interest as psychologists to formulate an account of our mental life which will not involve the undoing of the previous constructions of physical science.

II.

Before proceeding to the detailed examination of the views we have singled out for special attention, we must now briefly indicate the reasons which appear to turn the scale in favour of interaction as against any form of the two-aspect or parallel series doctrine, and examine, and, if we can, refute, certain general prejudices which have made the latter view the more popular at the present time.

First, then, the arguments in favour of interaction. These have always seemed to me to be in the main three. There is first the logical contention, which has been specially developed by Bradley, and never, so far as I know, seriously met. The facts on which our theory has to be based are all cases in which one total psychophysical state is sequent on another total state of the same complex kind. We have never to deal with sequence of the barely physical on the barely psychical or *vice versa*. Nor, again, can we verify as a fact in the history of our organism any real sequence of the barely psychical on the barely psychical, or the barely physical on the barely physical. Wherever we are dealing with what we have adequate ground for treating as fact, we find both antecedent and consequent complex.[1] Hence the only inference warranted by Logic seems to be to the dependence of complex state on complex state, or, in other words, to the

[1] In other words, the aspects of uniform habitual response to stimulus and of fresh teleological adaptation are always found together in any concrete reaction, never separate.

presence of psychical states among the antecedents of physical states and *vice versa*. We have no negative instances at all, of the kind which would be wanted to show that either series would be what it is apart from the other. And without such evidence, any such separation into two parallel series as is required by every form of the double-aspect theory seems to rest on a fallacy. Even in the case of reflex human action, which has often been brought up as one of the chief defences of parallelism, we are not entitled to say that because the background of psychical existence seems to be inoperative in determining the precise character of the physical sequence, it is not requisite for its existence. This insistence on the purely relative character of all observed independence indeed appears to me one of Bradley's chief services to Logic.

If you try to turn the edge of this argument by replying that it tells against the theory of two independent parallel series, but not against the doctrine of the double aspects of a single thing, you have to meet an equally damaging contention of which Dr. Ward has made effective use. If mind and body are to be two aspects of one thing, then we must have rigid one-to-one correspondence of each element of the psychical manifold with one definite element of the physical manifold. Nothing short of such absolute, complete, unambiguous point-to-point correspondence will give you the conclusion you want. A merely limited correspondence, extending only to certain characteristics of the corresponding elements, will no more prove your point than the correspondence between the relative position of dots on a map and of towns in a county will prove that the collection of dots is another aspect of the towns. Now such complete correspondence, as Ward argues, is precisely what we have not got. Before you could have it, you would have to analyse the mental series into elements answering exactly to the elements of the bodily series. Mere rough "localisation" would have to give place to a definite unambiguous correspondence between the relative position of each cerebral element and some definite relation of the corresponding mental element to all the rest. There would have to be an exact mental counterpart of the composition of an atom in the cortex out of more ultimate prime atoms, or even to the formation of the prime atom itself as a form of motion in a continuous ether. Again you would have to show the mental equivalents of the extension in three dimensions of each of your cerebral atoms and of its characteristic atomic weight, and so on. You would, in fact, be thrown back on a psychological atomism of the most uncompromis-

ing kind, and would have to meet all the objections which seem to have proved fatal to the atomic interpretation of mental facts.

A still more formidable application of the same line of argument results from starting with the facts of the psychical series, and asking how their physical aspect is to be conceived. For the elements of the mental manifold do not merely occur—they are understood, have a meaning. What then can be the physical aspect of the apprehension of meaning or significance? Suppose, for instance, that the same meaning is apprehended by two minds as constituting the significance of radically different series of mental images, as when St. Peter's congregation, on the day of Pentecost, heard "each in our own tongue in which we were born" the apostle's discourse, or when two minds apprehend the same truth by means of different sets of mathematical symbols. Or, again, suppose that the same series of symbols is differently apprehended, or, apprehended in one case, merely entertained as a succession of presented contents in the other. Where are we to look for the physical counterpart of this mental character of being apprehended as having significance? You cannot identify it with a peculiarity of some one elementary nervous process, as it, by hypothesis, must belong to the series as a whole, and not to any single part. Nor can you find it in the general condition of the cortex as a whole, at the moment of apprehension, as from the physical point of view such a general condition must itself be a mere aggregate of the conditions of single nervous elements, to which the mental correspondents must be peculiarities of the ultimate factors into which the mental state can be analysed. Reflexion on this problem of meaning and its apprehension has always seemed to me to lead inevitably to the conviction that there are, as common sense holds, forms or, at least, aspects of mental function to which there is in strictness no physical counterpart. I do not mean of course that they actually occur in isolation from cerebral process, or that they are even known to be possible in such isolation, but that there is no definite one-to-one correspondence between them and any one definite physical process of which they could be called aspects, and that they are therefore truly independent, in the same relative sense in which we can call any event in the world independent of another event.

This result seems to me in full accord with all the known facts of bodily and mental concomitance, as distinguished from extraneous metaphysical theories about the ultimate

nature of the real. For what the known facts of localisation, and so forth, show us is after all merely a certain partial concomitance between nervous and mental process, and further a certain broad correspondence between mental and nervous structure, such as is for instance indicated by the physical analogues to the laws of association or of the formation of mental habits. And such correspondence would be quite in accord with the view that body and mind are two interrelated things of the same type, though of very different degree of systematic organisation, a view which means a return to the old belief in interaction.

The reference to meaning as characteristic of the mental series suggests a further argument against any double-aspect doctrine. On the two-aspect theory, one of the series will have to be teleological, and the other merely mechanical. For the whole point of the doctrine, in the form which appeals to the modern psychologist, is that it exhibits the purposive as universally co-existing with the merely mechanical but not affecting its course. Hence we may leave out of consideration such a version of the doctrine as you get in some familiar passages of Spinoza, with whom the two series are alike mechanical in type, and teleological determination is theoretically excluded from both. But is this parallelism between an essentially mechanical and an essentially teleological and purposive series conceivable? Whether you make the mental series teleological and the physical mechanical, as you probably will, or with Münsterberg so define the consciousness studied by psychology as to reduce it to a mechanical sequence, and then restore the character of intelligence to human action by endowing the physical mechanism itself with the power of purposive selection, you are in either case asserting in one breath the exact correspondence, and the utter disparateness in principle of your two series. And this scarcely seems a rational attitude.[1] If again you decide, as it seems wisest to do, for regarding both series as teleological, the parallelism at once goes by the board. For the very fact that the one series can be more or less satisfactorily constructed in terms of a refined and complicated mechanism, while the other cannot, but needs for its interpretation the recognition of an explicit purposive and selective unity, shows that as teleological

[1] It is only fair to say that Prof. Münsterberg informs me in a private communication that his theory is meant to reduce both series for Psychology to the purely mechanical type. This explanation seems to me to rob his *Aktionstheorie* of all its suggestiveness and to leave the fundamental characteristic of psychical life a hopeless mystery.

systems they cannot stand on the same level of organisation; one or the other must represent a higher level of purposiveness, and as manifestations of the same type of structure but at different levels, the two series cannot have a genuine point-to-point correspondence. There must be, so to say, some term or terms of the higher series which have not their definite and unambiguous representatives in the lower. At the same time, with the possibility of complete parallelism disappears the need for a parallelistic view. For, if our two series are in the end structures which are not disparate but the same in type, the objection to admitting interaction between them falls.

Against all this we have to set three main considerations, which figure in all the parallelistic theories as the chief objections to interaction. (1) There can be no interaction between absolutely disparate realities. The reply is obvious. If the realities are really absolutely disparate, neither can there be exact correspondence; to correspond at all, even as symbol and meaning, they must have a nature which is in some respects the same. But unless the disparateness is ultimate and absolute, it is not of itself a proof that there can be no interaction. The force of this dilemma is so manifest that we shall see the absolute disparateness denied by the best advocates of parallelism themselves.

(2) It is said that interaction between the mental and the physical must from its supposed character be ultimately unintelligible. Apart from general objections to the intelligibility of any transeunt action, which would be irrelevant to our special question, the objection seems to mean no more, as Dr. Ward has said, than that the interaction cannot be described in purely psychological, nor yet in purely physical terms. The connexion cannot be a psychical one, nor yet can it be a physical one. This is of course obvious, but one does not see why it should be considered to have any weight as an objection to interaction. Such a criticism comes at least with a very bad grace from philosophers who confidently declare that, on their own theory, both series are aspects of an identity about which we can only say that it is not mental and again not bodily. So far as the objection contains anything beyond this obvious reflexion, it seems to rest on the conviction that *purely* physical or *purely* psychical causality *is* somehow self-evidently intelligible, and this is a point we shall have to deal with again later on.

(3) The one really telling argument against interaction is that if it is admitted it involves a breach with the purely mechanical theories of natural process. It is often said that

the difficulty is caused in particular by the conflict of interaction with the principle of the Conservation of Energy. This is however a mistake, as is pointed out in different ways by both Stout and Münsterberg. The principle of Conservation, by itself, tells us nothing as to the actual transformations undergone by the energy of a system in its successive phases. It merely asserts that, whatever the transformations may be, there is always a quantitative equality of the total energy differently distributed throughout a conservative material system. And again, as Stout observes, the principle if affirmed without restriction is hypothetical. Of itself it makes no assertion as to the reality or unreality of systems which are not conservative. Hence, it does not seem in principle absurd, with Lotze and others, to hold that interaction with maintenance of an unchanged *quantum* of energy is possible. How an immaterial agency, interacting with a material system, would affect it we have no means of knowing, *a priori*, and are not entitled to deny that its interference might determine the nature of the transformations of the system's energy without altering its quantity. I cannot but see in the confidence with which Höffding and Ebbinghaus, among contemporary psychologists, treat the principle of Conservation as of itself excluding the possibility of interaction a proof of inferiority to Stout and Münsterberg in general philosophical insight.

It is, however, clearly true that, if interaction is admitted, there will be a breach with the system of mechanical hypotheses to which the principle of Conservation belongs considered as a whole. And this is a point I would not merely admit but insist on. If there is any single process in the universe which is not completely determined in every respect by purely physical conditions, we have no good ground for holding that any process is ultimately so determined, and we shall have to give up regarding the hypotheses of mechanical Physics as ultimate philosophic truths. But why not? As such writers as Stout and Münsterberg show, it is not with the ascertained fact that the processes of the physical world are described by the mechanical hypothesis with sufficient accuracy for purposes of calculation and prediction that interaction conflicts, but only with the metaphysical assumption that mechanical principles give us the last word about the inmost nature of those processes. It is not physical science, but the mechanical metaphysics erected upon the assumption that mechanism is a complete and adequate account of natural process which must be pronounced defective if there is action of soul on body, and *vice versa*. And for my own

part, so far from being dismayed at the consequence, I should be surprised if it were not so. The system of mechanical physical hypotheses has been formed by express and intentional exclusion of all processes which can be recognised as teleological, and especially of psychophysical processes, from the facts to be examined ; its results have been derived from exclusive contemplation of those simple natural processes which appear to us at least to be devoid of purpose and inner significance. Hence I should expect it to prove inadequate when applied to the case of all others in which significance and purpose loom largest. To my own mind, the fact that a theory of mind and body was compatible with a purely mechanical view of the universe would create at least a fair presumption against it. And thus the very feature of the interaction doctrine which is most commonly adduced as its condemnation would to me tell powerfully in its favour.

The question, in fact, resolves itself into the more ultimate one whether the double aspect theory of reality is finally intelligible. I assume, of course, as is regularly done by the supporters of the view, that one of the aspects is to be mechanical. Then the question arises, whether one of your two aspects is to be subordinate in point of truth to the other. If you say, with Ebbinghaus, that there is to be no subordination, that teleology and mechanism are equally significant and equally true as ways of looking at the world, a double difficulty arises. Human action, on such a view, is of course just as mechanical as the movement of a falling stone. Our purposes and ethical struggles are there indeed, but they make no difference whatever ; everything goes on exactly as if mechanism were the sole truth. I do not see how such a view can escape the consequence that consciousness is a mere "epiphenomenon," and purposive action a pure illusion. We think our acts do make a difference, that but for our volition things would not be as they are, but we are all the time mistaken. Our will effects nothing beyond itself ; it never leads to a real act at all.[1] A sounder philosopher than Ebbinghaus, Bosanquet, cannot be acquitted of falling at times into the same position. When Prof. Bosanquet speaks in the last chapter of his *Psychology of the Moral Self* of "the whole process of nature as being instrumental to the development of that which is of spiritual value," he carries me with him, though I do not see how this can be reconciled with the

[1] Dr. Shadworth Hodgson's theory in his *Metaphysic of Experience* appears to me to bring out this point forcibly. Volition is with him *always* successful, just because it is *never* really operative.

doctrine of parallelism, but when he says elsewhere that "the spiritual view is that which regards experience as a mechanically intelligible whole," I must suppose that he has forgotten the significance of his other declaration. For, if "mechanical" here means what it usually does when the processes of nature are declared to be merely mechanical, then "mechanically intelligible" must mean intelligible without reference to an inner unity of purpose or significance, and therefore not spiritual. And if it means "intelligible as a true machine is intelligible," we have to remember that no true machine is a whole at all; it is a subordinate instrument in the execution of purposes imposed on it from without, requiring purposive action from without both to set it at work and to regulate its behaviour. In a word, whatever is a true machine, just because it is such, must be thought of as interacting, and that on terms of inferiority, with something which is not a machine.

Again, if your two aspects are equally true, why do you trouble to have two at all when one would be as good? And where does their difference fall? Are they merely accidental aspects in an Herbartian sense, differences of subjective standpoint on our own part, to which nothing in the character of the contemplated object corresponds? Still the difference is none the less really there, and calls for some sort of justification. Presumably, if we make a distinction, it is because we have already found a disparity to which we wish to give intelligible expression. Or are we, in the fashion of Mill, to fall back on an "ultimate inexplicability" whenever we wish to maintain the inexplicable? On the other hand, if we cannot escape in the end declaring one of our aspects to contain deeper truth than the other, there can be no doubt which must be treated as subordinate and relatively false. For you cannot intelligibly treat purposive action as low-level mechanism, whereas mechanism, as the case of our own secondarily automatic acts shows, can be easily understood as a degraded form of teleology. In the case of acquired habits, the only case where we have a glimpse into the actual formation of mechanical reaction, we find the mechanical always as the lower limit of the purposive, the type to which originally teleological reaction approximates in proportion as it becomes sufficiently fixed to permit of the withdrawal of attention. Thus acquired habits both of mind and of body illustrate the presence in both mind and body of an aspect of mechanism in the true sense of the word, *viz.*, routine execution of reactions which form a subordinate factor in the performance of acts which as whole acts are

teleological. In this sense, both body and mind present a real analogy with a genuine machine.[1]

But two points must be carefully noted. Not only is the mechanical act, wherever we can trace its genesis, genetically a degraded teleological act, but the approximation to the purely mechanical type seems never to be so complete in the case of mental as in the case of bodily process. Even an association of ideas never seems to become so purely dependent on established routine, and so independent of the needs of the present situation as a thoroughly well fixed physical habit. Apperception seems, in a decently rational mind, to dominate association much more completely than adaptation ever succeeds in dominating physical habituation. But, if so, then the relative significance of mechanism for the bodily and the mental series will not be the same. Mechanism, if not the full truth anywhere, will be the truth about the physical to a quite other degree than about the psychical. The full working out of this view would lead to a theory of the function of mechanism which would put it much in the same place as the element of passivity in the various stages of the hierarchy of Monads in Leibniz. It would come to be thought of as an ideal lower level, in all probability never actually reached, but sufficiently approximated to in the infra-organic world to admit of the successful calculation of natural processes by the aid of purely mechanical hypotheses, but increasingly departed from as we ascend in the scale of existence through the organic to the clearly self-conscious and rational. We should thus see the philosophic reason why the success of the mechanical hypothesis in Physics is no logical ground for anticipating an equal success in Psychophysics. How this view can be applied to the case of inorganic Nature is a question which does not concern us here; it is enough to refer to Ward and Royce among recent philosophers as able exponents of it. Its importance for our psychophysical problem is obvious. For it absolutely denies the exact point-to-point correspondence which is the *sine quâ non* of the parallelistic doctrine. It asserts, at the same time, that body and soul are to be conceived as objects of the same general teleological type, but of very different levels of structural development, and

[1] I am glad to be able to call attention to the close resemblance between my own views and some of the positions adopted in Prof. Royce's *The World and the Individual*, series ii. Had Prof. Royce's book come into my hands at the time this paper was written, I should undoubtedly have been under considerable obligations to his treatment of the problems of the "world of description".

thus prepares us to hold that the relation between them must be thought of in the natural and obvious way as one of interaction, unless special reasons to the contrary can be produced. The formula which would most aptly express our position would be that of Beneke, that the soul is an organism of the same type as the body, but of a higher level of organisation and therefore of internal coherence, or the profound saying of Leibniz that the body is a "momentary soul". And I should draw the important consequence that the relation pointed to by this formula seems at least to be one of partial and only partial dependence, and therefore that the problems dismissed as unmeaning by Bosanquet of the seat of the soul and its possible pre-existence or survival are perfectly legitimate, and indeed ultimately unavoidable.

There still remains, of course, the ultimate metaphysical question whether transeunt action in any case is conceivable. Now, from the purely psychophysical standpoint this question appears irrelevant. For one thing seems quite clear; Psychophysics, in spite of the philosophical problems it suggests, is a purely empirical science. If interaction proves the least unsatisfactory hypothesis for the co-ordination of its special facts, it is entitled just as Physics is to waive the metaphysical problem. At the same time I should like to refer in passing to what seem to me the final possibilities in Metaphysics. If transeunt action is either more than phenomenal, or, again, is a phenomenon *bene fundatum*, interaction, I have urged, is vindicated; if not, then the case of soul and body cannot be separated from the other cases of apparent transeunt action, and we shall have either to deny the existence of order and system in the world, or to fall back with Leibniz on some theory of a general pre-established harmony between the states of reals which are actually independent. In spite of the ridicule which has been cast on this view, it seems to me far more philosophical than the neo-Spinozistic metaphysics usually advocated by believers in parallelism, and I confess I should feel compelled to adopt it, if I were convinced that Pluralism were metaphysically sound.

III.

To come now to the examination of recent parallelistic arguments from the point of view which we have just reached. Of the three psychologists we have singled out for discussion, it will, I think, be found that Stout adopts the most reasonable general position. Ebbinghaus, while much cruder in his philosophical attitude than either of the others,

is a truer representative of the bulk of the supporters of parallelism, and illustrates most clearly the weaknesses inherent in the doctrine as currently held; while Münsterberg is probably the most convincing, if once you admit the peculiar philosophical position from which he starts. Agreeing in the main with the philosophical view of Stout, I find myself led by it to reject his conclusion; if I could agree with those of Münsterberg, I should find it hard to dissent from his results. Ebbinghaus I am compelled to regard as on the whole, in this part of his work, the victim of a series of plausible but superficial philosophical fallacies.

To begin then with the Englishman. The great merits of his discussion, to my mind, are the clearness with which he realises that interaction cannot be dismissed on the strength of the Conservation of Energy, and the candour with which the tentative character of his parallelistic result is avowed. But this very candour may reasonably lead us to suspect that Stout's grounds for rejecting interaction may not be so solid as they appear at first sight. This is, indeed, I believe the case. The argument may be summarised in the following sentences from the third chapter of Stout's *Manual*. "The kind of interaction presupposed is utterly incongruous with the conception of causation on which the whole system of our knowledge both of physical and psychical process is based. It is the function of science to explain how events take place, in other words to make their occurrence intelligible; . . . we must exhibit cause and effect as parts of one and the same continuous process . . to explain is to exhibit a fact as the resultant of its factors. . . Now when we come to the direct connexion between a nervous and a correlated conscious process, we find a complete solution of continuity. The two processes have no common factor. . . . No reason in the world can be assigned why the change produced in the grey substance of the cortex by light of a certain wave-length should be accompanied by the sensation *red*, and why that produced by light of a different wave-length should be accompanied by the sensation green. It is equally unintelligible that a state of volition should be followed by a change in the substance of the cortex and so mediately by the contraction of a muscle."[1]

Now, so far as this reasoning amounts to the general reflexion that a psychophysical transaction cannot be fully accounted for by purely physical nor yet by purely psychical laws, we have seen already that it has no weight as an objec-

[1] *Manual*, 2nd ed., pp. 46, 47.

tion to interaction. Its further implication is one of the utmost importance, and must be fully examined. The argument seems to turn entirely on an identification of causal explanation with the reduction of all sequences to continuous processes determined by numerical equations. For wherever you have the emergence at any stage of a process of what is qualitatively new, you have, *ipso facto*, a solution of that kind of logical continuity which Stout demands. You can never say why a readjustment of numerical relations should involve the appearance at just this point of just this new quality. Now all causation, I would submit, depends upon this very solution of continuity effected by the emergence of new qualities. In merely quantitative change considered as such there is nothing which enables you to distinguish between cause and effect; you have temporal continuity, and you have your equations, and that is all. It is only the further fact that new qualities appear at certain stages which makes it proper to speak of the process as a causal one at all. The whole paradox of causation lies in the fact that it involves a synthesis of the quantitatively or numerically continuous with the qualitatively discrete. And the successes of Physics are due to the fact that it consistently refuses to take the qualitative aspect of processes into account; it treats the qualitative side by abstraction as though it were not there. Hence the expulsion of the category and name of causation from Physics by thinkers of the school of Kirchhoff and Mach who are seriously concerned to attain logical consistency in their views of method. Hence again the necessity for Physics of regarding all qualities as secondary and subjective.

But, if consistency is got within the sphere of Physics by relegating all qualitative differences to the psychical side of things, we are at once confronted by a double difficulty of the most formidable kind. First, you have now, if you are a parallelist, to maintain a point-to-point correspondence between the qualitative psychical process and the purely non-qualitative physical process, or, in other words, to be ready to find qualitative equations corresponding to each of your physical equations between quantities. Next, and this seems a very serious difficulty, the very inexplicability which led you to deny interaction breaks out again within the qualitative or psychical series itself. Every psychical sequence is a sequence of qualities; the effect is here always something qualitatively different from the cause, and no fact can be exhibited as the "resultant of its factors" in the sense in which the phrase was used in the previous argumenta-

tion. The solution of continuity which you declared fatal to interaction is no less fatal to psychical connexion. Hence, if Stout's premisses were sound, he ought, it seems, like Münsterberg, to deny the causal connexion of one psychical state with another. His argument leads direct to the conclusion that psychical states are not directly connected, and that the causal connexion between them is a merely indirect one effected "through the body". Unless this step is taken, every succession of mental states seems to give rise to a problem of the same kind as that created by the sequence of a sensation green on a change in the cortex. But if we do take this step, we expose ourselves to the objections urged with, as I think, unanswerable cogency by Stout himself against one-sided causation.

With the more general argument against recognising the operation of a "factor which does not belong to the material world at all" it is not necessary to deal at length. I will just observe that the very wording of the argument is such as to suggest a *petitio principii*. The real question is as to whether we have a right, in strict logic, to talk of the material "world" at all. The philosophers who reject the metaphysics of the Double Aspect hold that you have not. The material, they contend, is only given to us as a factor in experience which is throughout in interrelation with an immaterial factor. And when you sever the two you find that the material element considered in itself exhibits, in many ways, all the marks of incompleteness. It is something which requires for its own comprehension the recognition of its thorough-going dependence on something else, and apart from that Other is in the last resort a congeries of contradictions. Hence it is inevitable that somewhere in experience you should come on cases where the treatment of the material as a self-subsisting and self-contained whole breaks down. The introduction somewhere into your phenomenal science of a non-material factor is, on this view, an obvious necessity which might have been predicted *a priori*. Thus to speak of the material "world" at all, if you mean what you say, is by implication to decide the question in advance in your own sense.

When we come to the metaphysical explanation of parallelism we find that Stout himself shares the general position of the immaterialists. The material world turns out to be no world at all, but a mere factor in a larger whole of which we cannot say very much, but can at least say that it is immaterial. In particular we are told that we must not assume that "the system of immaterial agency which we

know as matter" has the type of interaction which our physical science ascribes to matter, and it was added in the first edition of the *Manual* that we shall be nearer the truth in calling it consciousness than in calling it matter.[1] In other words, it turns out to be, what I have contended that it is, a structure of the same general type as the mental system, but of an inferior grade. What then becomes of the point-to-point correspondence of the mental series with a special part of the physical series, which is the foundation of the parallelistic hypothesis, or of the alleged disparateness which was to exclude interaction between the two series? Interaction seems to me decidedly the more natural interpretation of the facts from the philosophical standpoint of the author himself.

An examination of the pages devoted to the subject of Soul and Body by Ebbinghaus (*Psychologie*, i., 27-47) will be less fruitful in raising fundamental questions, but extremely instructive as affording illustrations of the loose kind of argumentation by which interaction is often supposed to be refuted, and the vague analogies which are complacently offered in proof of the rival theory. As before, we may begin with the objections urged against interaction; these, rather than any positive grounds for asserting parallelism, being usually treated by psychologists of the parallelist persuasion as sufficient to decide the question. Ebbinghaus begins with a statement of the every-day unscientific form of the belief in interaction, in which there is little to complain of except the assumption that the belief, as held by the ordinary man, includes the doctrine of a "free will of indifference," at least within certain ill-defined limits. He thus gets the opportunity to prejudice the case for interaction a little unfairly by involving it in the fortunes of extreme Indeterminism. Possibly this arises from the assumption that mechanical determination and sheer indetermination are exhaustive alternatives. He next goes on to rest his rejection of interaction exclusively on the principle of Conservation, though the

[1] This last remark has significantly disappeared from Dr. Stout's second edition. By its disappearance his "immaterial system" becomes, for all I can see, a mere Kantian "thing-in-itself" of the constitution of which we know absolutely nothing, and which can therefore hardly come as an explanation of psychophysical parallelism, or indeed of anything else. It is perhaps worthy of note that a further change in the second edition of the *Manual* is the interpolation in the same context of a paragraph (p. 53) which attenuates Dr. Stout's "idealism" by explaining it away to mean no more than that "whatever exists must be knowable". I suspect most "idealists" have usually meant a great deal more than this by their doctrine.

details of his argument suggest that it is principally the second law of Thermodynamics, that of the Dissipation of Energy, which he really has in view. After a general statement of what is understood by Conservation, he goes on to observe that the mechanical energy of the organism is approximately constant, and adds, what of course assumes the point at issue with regard to the existence or non-existence of non-conservative systems, that if we could take into account the whole of the dynamical transactions between the organism and its environment from birth to death, we should find exact conformity to the principle of Conservation. Next, he infers that interaction is incompatible with Conservation, but only by means of associating with the principle of Conservation the whole body of mechanical principles required for the complete determination of a material configuration. Interference with a material system by an immaterial factor would, he says, imply the new creation of energy. Or if you suppose the interference to take the form of an alteration of direction with finite but negligible expenditure of work, it still follows that by such repeated interferences the total energy of the organism might ultimately be increased, and a man would be a sort of perpetual motion machine. Now, all this is, no doubt, true; but Ebbinghaus has not, in the first place, shown that there is any reason, beyond a general prejudice in favour of a mechanical philosophy, for regarding the psychophysical complex as a conservative system. Nor, in the next, is his argument that change of direction necessarily involves alteration of the existing *quantum* of energy convincing. For we may conceive our immaterial factor acting, like Clerk Maxwell's famous demon, so as to change the direction of a movement without doing work, or after the fashion of a force acting at right angles to the direction of motion. Or we may suppose that somehow there is compensation on the whole for any disturbance. Again, when Ebbinghaus treats it as a sort of *reductio ad absurdum* to say that the theory makes a man into a *perpetuum mobile*, he tends to forget that more than one respectable philosophy has taught that the soul is precisely this, and that no one can prove the contrary, as Dr. Ward has recently reminded us, until the law of Dissipation of Energy has been shown to be valid for living organisms. In failing to see that it is this law which is at stake, and that unless it is valid the *reductio ad absurdum* does not hold, Ebbinghaus gives evidence of a grave want of thoroughness which is still further exhibited by his light-hearted observation that such possibilities cannot be seriously entertained.

The one possibility he thinks serious enough for examination is just the one which a sound philosophical insight would have rejected by instinct, the notion of mental action as itself one form of energy with its mechanical equivalent in foot-pounds. He rightly points out that, on the view which is apparently his own, that all energy is either energy of actual motion or of position, this would imply the doctrine that the mental series itself is really a series of changes of configuration in a qualityless material system, and that thus the whole body of qualitative experiences which are saved from extinction, on the current mechanical theory, by being labeled subjective, would become an unintelligible mystery. What he apparently does not see is, that, even apart from this particular view as to the nature of non-kinetic energy, the inclusion of the psychical series in the mechanical system means the fatalistic determination of human conduct by external circumstances.

At the end of this string of objections to interaction, Ebbinghaus pauses to reply to the pertinent criticism that we are not warranted in building our psychology on either the doctrine of Conservation or the mechanical interpretation of Nature. His reply amounts to saying that we are bound to avail ourselves of the most adequate scientific hypotheses procurable, even if we cannot regard them as finally established truths. And the fundamental importance of both these assumptions in the physical sciences shows that they are more than mere hypotheses. The rejoinder, however, either misses the point or begs the question, as you like to take it. It does not of itself follow that because physical science does its work best by the help of the mechanical theory, Psychology will succeed by the same means. It all depends on your general philosophical view as to the amount of truth there is in a mechanical theory of the world. If all reality is mechanical in the same sense and to the same degree, then of course the same thorough-going mechanical scheme which serves so well for Physics will be equally necessary for Psychology. But if the whole notion of merely mechanical process is philosophically unmeaning, we may expect to find that mechanical assumptions which work within a certain sphere become sources of positive mischief if applied outside it, and until we have attacked the problem, we clearly cannot tell whether Psychology may not be the point at which the inadequacies of a mechanical conception of reality first become palpable. The appeal to the success of mechanical explanation in other fields then simply assumes the issue which is at stake.

Ebbinghaus goes on to affirm that the true theory of the relation between body and mind must be one of Identity; this he says has been, in the last resort, the view of almost all philosophers. But the identical reality can be neither material nor spiritual. With the former alternative we need concern ourselves no further here; what are Ebbinghaus's reasons for rejecting the "spiritualist," *i.e.*, idealistic interpretation of the facts? It would hardly be credible if one could not turn to the printed page, but he has nothing more cogent to urge than that the soul must be thought of as simple and indivisible, and localisation shows that there is no such simple and indivisible subject. "Spiritualism is forced therefore to admit that, so far as the souls have any mutual knowledge of one another, spatiality and materiality must be ascribed to them essentially and in the strictest sense." Why the idealist must suppose the soul to be atomic, or again how the facts of localisation would prove the soul itself to be extended there is not a word to show; until these points have been made a great deal clearer, I fancy we who regard ourselves as in principle idealists shall hardly feel greatly disturbed by this new "Refutation of Idealism". Ebbinghaus next tries to make the meaning of an identity with two aspects clearer by an illustration. We are asked to imagine a set of spherical or ellipsoidal coats, one inside another. These surfaces are to be conscious. The various parts of the same coat, it is assumed, will appear to one another as concave. At the same time each coat will be experienced by those surrounding it as convex. While finally the human spectator from without perceives that they are at once concave and convex. It is a pleasing parable, but one does not precisely see the analogy with the case of soul and body. In the first place, there is no outside spectator in our case who can reveal to us from the standpoint of his superior knowledge the unity of the inner and outer aspects, and surely this ought to make some difference. In the second, there is in the symbol precisely that identity of character which is wanted for point-to-point correspondence, and which we miss in the reality the symbol is meant to illustrate. The convex and the concave are at least both alike in being determinations of a common type of extension, capable of study by means of the same geometrical methods; so much at least we should expect our intelligent spherical surfaces to discover for themselves. And when you come to look at things from the point of view of the mathematician who sees both upper and under surface, he can exhibit their unity by showing how the equation which gives a curve or

surface concave towards an axis or axes may, by merely changing the origin of co-ordinates, be transformed into an equation giving convexity towards the same axes. This is something like genuine parallelism, and if we had anything equivalent to it among the facts of our psycho-physics, the parallelist might regard his case as proved. But in actual fact the illustration might almost have been devised for the purpose of showing what we have not got. We have a series of spatial and quantitative changes in the configuration of a system of extended parts on the one side, on the other a series of changes in a qualitative manifold, non-spatial and unextended, and forming no mere assemblage of parts but a self-conscious whole. Indeed the whole amount of correspondence which we have to set against the common geometrical character of our concave and convex curves or surfaces seems to be that the various members of the mental and bodily series are synchronous. Instead of being able to shift our origin of co-ordinates, so to say, and thus show how at will to derive the one aspect of the identity from the other, we have to treat their correlation as a "fundamental inexplicability". If it were possible to make the illustration still more unhappy than it is, Ebbinghaus's own interpretation has done so. For he goes on to identify the convex aspect of his surfaces at once with external reality as seen and felt, and with the purely quantitative processes of mechanical Physics. "In so far as things can be seen and felt . . . we have, for outer intuition, a closed sequence of mechanical thermic chemical and other processes." But these processes themselves, forgetful of the difficulty created by their qualitative differences, he declares to be in the end purely mechanical. They must therefore be devoid of secondary qualities, and therefore in their nature incapable of being intuited at all. Also the consequence is drawn, as it must be from the premisses, that mechanism and intelligence are equally true and equally fundamental in the universe. It is just as true to interpret mind in terms of mechanism with the *Système de la Nature* as to interpret Nature in terms of mind with Plato or Hegel: a position on which I have said already all I desire to say.

Finally, Ebbinghaus, like other supporters of the identity doctrine, tries to pull down the scaffolding from his edifice. There is no disparateness after all between the material and the mental, for they are both mere complexes of presentations. It is suggestive to compare this utterance with the much more philosophical expression of the same view in Stout. Stout is of course careful to distinguish between the perceived

qualities of the physical world and its non-phenomenal reality, which Ebbinghaus's careless expression crudely identifies. If the latter is to be taken at his word, his final philosophical view must be mere Subjectivism both as regards the outer world and as regards the self.

It is a pleasure to pass from these inconclusive reasons and fallacious analogies to the work of Prof. Münsterberg.[1] Münsterberg's metaphysics may be good or bad, but in either case they have been consciously and carefully thought out, and his doctrine of psychophysical connexion deduced from them with extraordinary skill and minuteness. Even if one rejects the metaphysics and the deduction from them together, one at least always feels that to know why one disagrees with Münsterberg is a great step towards really knowing one's own mind on things philosophical, and this is more than can be said of any but the most distinguished writers on philosophical topics. To examine his views thoroughly is almost impossible without entering on a general criticism of his whole psychological position, but I will do my best to summarise his argument, so far as it bears directly on our special subject. The peculiarity of his philosophical attitude is that he holds at once views which are commonly thought to be antithetic; he believes, on the one hand, that real life is through and through teleological, and that all descriptive and explanatory science is necessarily purely mechanical. Description and explanation are only possible on condition we make entire abstraction from the relation to the life of individual purposes which constitutes the reality of the real world, and treat the things to be described and explained as mere given objects, independent of any relation to the willing self, and mutually connected by merely mechanical laws. For Psychology this means that the teleological unity of a real mental life must be replaced by the conception of consciousness as a succession of presented contents, which in the last resort can be analysed completely into sensation complexes. Anything in the nature of a selective attention, or self with an inner unity of purpose, incapable of being treated as a mere complex function of given sensation must be rigidly excluded from scientific Psychology; to admit it would be to confuse the artificial creations of descriptive science with the real facts of active life.

The problem of psychical connexion then is not concerned with actual facts but solely with the products of an

[1] *Psychologie*, i., pp. 402-436.

elaborate transformation of the facts, undertaken with a view to their description and explanation on rigidly mechanical lines. Psychology has not to discover *the* connexion between the states it studies, but to invent *a* connexion suitable for descriptive and explanatory purposes. Now this connexion between mental states can never be a causal one. For causality implies persistent identity, and also quantitative equivalence. And no mental state persists or recurs a second time; also, as each state, from the very nature of the artificial scheme implied in the construction of a Psychology, exists only for a single "subject-act," no quantitative relations can be established between mental states. Therefore the connexion between successive states must be always indirect and must be somehow effected through the body. Münsterberg insists emphatically that, apart from these general epistemological considerations, there would be no valid reason to prefer a parallelistic hypothesis to one of interaction or even of Occasionalism. The empirically ascertained facts, as he shows triumphantly, will equally well fit any type of theory, and that for the excellent reason that we state them to begin with in terms which already involve a theory. And as to the Conservation of Energy, he remarks that if it be accepted merely as a result of empirical research, the extension of it to the facts of the organic realm is unwarranted, but if stated as part of a general postulate that all scientific explanation shall proceed on mechanical lines, it is a consequence of the epistemological view as to the nature of all explanation previously adopted by himself.

On epistemological grounds, then, and on such grounds only, we must decide for a parallelistic hypothesis of a type which will co-ordinate mental states, themselves non-quantitative and devoid of any causal relations, with definite stages in a causal series of physical events. How is this possible? Physical objects and processes in general exist for and can be observed by any number of different consciousnesses, whereas the very differentia of a psychical state is that it is only accessible to a single individual consciousness. How, then, are we to correlate the essentially individual with the essentially supra-individual? Münsterberg replies that there is one physical object which has the peculiarity of existing at once in two entirely different ways, and thus being at once individual and supra-individual, and that is my brain and nervous system. For the anatomist my brain is one physical object among others, capable like them of description in general terms, and of being actually exhibited to the collective perception of a plurality of consciousnesses

at once. At the same time my brain as it is, not for the anatomist who may dissect it, but for myself, is marked off from all other physical objects by the fact that it is the one and only object of perception which I in particular am for ever debarred from perceiving. This unique peculiarity makes my brain for myself an individual object in the strictest sense. The problem of psychical connexion will then be solved if every state of the individual consciousness can be resolved into elements definitely correlated with elementary processes in the individual brain, that is, into sensation complexes. Now Münsterberg believes himself to have shown that this analysis is, in any case, imposed on us by the conditions of psychological description. Hence rigid parallelism is the only doctrine of psychical connexion which is in complete accord with his general theory of the nature of psychological problems.

The following points must be specially noted as characteristic of his view. The question of psychophysical connexion becomes for him secondary; quite apart from the problem of mind and body, his result is dictated by the need of establishing indirectly some connexion between psychical states themselves. The brain, in the sense in which it serves as the medium for this connexion, is expressly declared to be the brain as it is for me whose brain it is, not as it is for the anatomist who dissects it or constructs diagrams of its parts. Ordinary statements of the parallelistic doctrine are, Münsterberg holds, excessively crude in their neglect of this vital distinction. It is through the process of introjection which is brought about by the establishment of correlation between mental state and brain process that it becomes possible to give the purely timeless mental state a place in the time series; it belongs to the time series, as to the spatially extended, only in a secondary way through its brain process. The precise nature of the relation between the associated states cannot be explained further than by saying that it is "purely logical". In particular, we are not to suppose that the physical state causes its correlate. All causation, on Münsterberg's view, is interrelation in the permanent and quantitative, and therefore in the physical. These will, I think, be found to be the leading ideas of Münsterberg's wonderfully subtle deduction of parallelism from philosophical first principles.

And now what is to be said about the whole deduction? First it must be remarked that the reasoning turns entirely on the assumption that a descriptive and explanatory science must work with purely mechanical categories. Mental life,

therefore, must be viewed by the psychologist solely as a mechanically determined sequence of states, not as possessed of a conscious purposive unity. If we ask why this is so, we shall be told that for Psychology mental processes form a datum or "given," and must therefore be considered in abstraction from their meaning or value for a self. But why may we not regard the typical or generalised self with its motives and ends as itself the psychologist's given? Because Münsterberg systematically assumes that the only possible method of description and explanation is by analysis into atomic elements, and a self with any real teleological unity is something which resists such analysis. Of course, if you once make the admission that atomistic analysis is the only scientific method of description or explanation, the consequence at once follows. Having got your atoms, nothing remains but to piece them together again into mechanically constituted systems. A whole which is not the mere sum of its parts will have no place in your reconstruction. But why should the assumption be made to begin with? The presence of biology among the "descriptive" sciences of itself suggests that description and atomistic analysis need not be identified. In general we may surely say what kind of terms you will use for purposes of description will depend on the purposes for which your description is undertaken. Münsterberg's restriction of the name description to analysis into atoms seems due to nothing more than a notion that the only way to describe an object is to indicate a number of presentations out of which the presentation of it may be built up. "But then you will be permitting one and the same science to confuse mechanical and teleological principles of interpretation, and this is intolerable." To confuse them, No, but to use them certainly, Yes. For, if mechanism is really low-grade teleology, as we have already urged, it is certain that somewhere in the universe of describable processes we shall reach a point where mechanism will no longer serve us as a principle for the formulation of our facts, but must give place to explicit teleology. And, if this point should fall somewhere within the realm of the psychical, of course a complete Psychology will have to use both mechanical and teleological categories, the former for routine and habitual, the latter for novel purposive action. Whether such a transition must be effected within Psychology can only, so far as I can see, be decided by the good or ill success of the attempt to work out a purely mechanical psychological theory; the question must not be answered in the negative on the strength of a general prejudice about

scientific method. In other words, unless all description arises from the same motives as the descriptions of physical science, we cannot assume that it must be subject to the same logical restrictions.

Nor should I be averse to the proposal to judge the possibilities of a mechanical Psychology by the actual achievement of Prof. Münsterberg. For it will, I contend, be found that his psychological scheme is only got to work by an indirect reintroduction at the end of his construction of that very teleology he began by banning. In his description of the psychical objects he is extremely careful to exclude every vestige of the teleological character. They are to be states mechanically sequent on one another but possessed neither of purpose nor meaning. The consciousness studied by the psychologist is to be a cognition which knows nothing, a volition which wills nothing. For my own part, I admit the consequence follows on a theory which reduces attention and emotion to secondary complexes of sensational elements, but I should deny the necessity of the reduction itself. If you carry it out, you seem to be in the paradoxical position of undertaking for motives of a practical kind (such as the anticipation of the future, in so far as it is independent of your own intervention, which Münsterberg regards as the chief incentive to the task of scientific description and explanation) a transformation of the actual facts which renders them positively unrecognisable. If the fundamental truth about real mental life is its teleological and non-mechanical character, how can you hope to understand it better by translating it into mechanical sequence? Philosophically the whole procedure seems to rest on nothing better than the prejudice that the only kind of unity which can be described in general terms is that of a system of differentiations; if it is possible to form a general conception of a unity which shall be what Dr. McTaggart calls a centre of differentiations, and to apply the concept to the facts of empirical Psychology, the methodological argument for mechanical atomism in mental science falls to the ground.

Nor is it the case that Münsterberg's mechanism will really work, even within the limits laid down by himself. He does, no doubt, formally get rid of selective attention and so of purpose, but it is only to reintroduce them at the end of his construction in a biological disguise. When he comes fairly face to face with the question, to use his own words, who is it who decides in the last resort what, in particular, the content of consciousness shall be at any given moment, he rejects the Apperceptionist's answer, "the soul," as intro-

ducing the teleological categories of real life into the region of mechanical science. But what is his own answer? It is that attention, and consequently consciousness, is determined at each moment by the actual state of the subcortical motor centres. A sensory process is attended to, and so becomes conscious, when its motor-process inhibits the antagonistic motor-process. But when we go on to ask more closely what determines which motor innervation shall at this instant inhibit its antagonist, we find ourselves face to face with a dilemma, which however solved means the abandonment of the mechanical scheme. "An anatomically pre-established connexion" may explain how in general attention is effected; it cannot explain why at this moment I attend to one thing rather than another. To deal with this last problem, involving as it does the whole *rationale* of intelligent origination of fresh adaptation, we seem forced either to introduce a psychical selective factor or to graft on the anatomical apparatus itself all those qualities of a teleological kind which we began by excluding on principle from the objects of descriptive science. In short, unless we can reconcile ourselves to the view that the physical organisation represents a higher grade of teleology than the mental, Münsterberg's motor machinery turns out to be a mere alias for what the rest of us are accustomed to call the "soul". And, in either case, we have broken with the mechanical assumptions which were declared to be the only tenable ground for rejecting interaction.

This conclusion will, I think, be confirmed by a brief examination of the *Sonderstellung* which the brain receives in Münsterberg's parallelistic theory. The brain, through which my mental states are to be connected, is to be the brain, not as capable of dissection or of description in general terms, but as an object strictly individual and existing exclusively for its possessor. But in what sense does my brain possess this peculiar kind of existence? It can hardly be true that the mere fact of my inability to see my own brain constitutes a genuine principle of individuation, as Münsterberg's language would lead us to suppose. For all that can be said on this ground of my brain might equally be said of the small of my back. I cannot directly see the small of my back (or we might say the crown of my own head, if we like), any more than my own brain; and if I can see the reflexion of these parts in the glass, or again can touch them, so, if an opening were made in my skull, I could touch, or, with a suitable arrangement of mirrors, indirectly see the cortex of my brain. Even the subcortical motor centres, which play so important a part in Münsterberg's psychological theory,

stand in this respect in the same position as other inaccessible parts of my own internal organs, *e.g.*, the inside of my own heart. The principle of individuation, then, which is to make my brain a unique thing in the universe, is not merely negative; it must have a positive character unshared by anything else. That is, we must say, my brain is unique not because of what it is not, but because of what it is; not because I cannot make it an object of perception, but because I directly experience it in some other and incommunicable way. The two statements sound superficially alike, but there is logically a world of difference between them. Now what is my "brain" as thus directly and incommunicably experienced? It is simply another name for my whole mental life, or, to be quite plain, my mind. As such, it is incapable of description in terms of an atomistic and mechanical science, and has no true place in the scheme of physical objects declared by Münsterberg to be the only proper objects of physical study. My brain, in the only sense in which it can be known or studied at all, *a fortiori* in the only sense in which I can speak of co-ordinating psychical states with cerebral processes, is just my brain as dissected, described or charted by the anatomists. The correlation of mental life with the states of the brain in this sense would, if successful, be a genuine theory of psychophysical parallelism; but such a correlation has been declared by Münsterberg himself impossible in principle. The unique individual object of experience which he puts in its place is indistinguishable from the mind itself, and thus leaves nothing to be correlated. The proposed correlati onwould, in fact, amount to a string of identical propositions, A = A, B = B, and so forth. Meanwhile it should be instructive for those psychologists who do not accept atomistic analysis as the one lawful method in psychology that Münsterberg emphatically declares parallelism to be impossible unless all psychical fact can be translated into sensational complexes, thus from the enemy's camp confirming our contention that the aspect of significance itself, unless expelled from our psychological data, is irreconcilable with the parallelistic doctrine.

There remain as arguments against interaction, from Münsterberg's standpoint, only the alleged unquantitative and timeless character of mental states. As to the first point, the general question of the connexion between quality and causality has already been dealt with. If the view we have taken is sound, causal connexion of mental states with each other and with physical states does not demand that they shall have no qualitative differences and so be merely

quantitative, but merely that they shall have some quantitative character. This condition will be satisfied if they have even the single quantitative character of duration. (Of intensity I say nothing here, as it requires an analysis of the concept of quantity which I should not be competent to perform, even if space permitted of it, before we can decide that the so-called "intensive quantity" of the psychical is really quantitative at all.) As to the aspect of duration, it certainly seems to me that the psychologists who recognise it are entirely in the right. For it seems a baseless paradox to maintain that a mental state, for instance a pleasure, only appears to last a longer or shorter time when we have ascertained something about the duration of its physical conditions. And, with respect to position in the time series, Münsterberg's one formidable argument, that the moment of immediate consciousness, being the point from which temporal distances and directions are estimated, cannot itself have a position in the series, really seems like contending that since the positions of points in space are indicated by taking co-ordinates with reference to an origin with zero co-ordinates, the origin itself has no position. For every point may be a Here in exactly the same sense in which every moment may be a Now. Further, if the mental state as such has no temporal position, how does it ever get one? There must be some reason why it is assigned to the same time as this one particular physical process rather than to another. This reason cannot be mere correspondence, which is what Münsterberg seems to mean by saying that the connexion is *rein logisch*. For both the process and the corresponding state may recur, and thus mere correspondence affords no means of distinguishing the earlier sensation, for instance, from its qualitatively indistinguishable replica. Psychology would thus be in the same position as a geometry which had absolutely no means of distinguishing different points on the same line. Now, if the basis of identification lies in the synchronism of the physical process and the mental state, everything at once becomes simple; if not, you have to take refuge in the assertion of a relation of purely logical "concomitance," of which one can say nothing except that it answers to no relation between propositions, and therefore is in no intelligible sense logical.

I have tried then to show that the contentions brought by recent psychologists against the notion of psychophysical interaction have no conclusive force, and that their own parallelistic constructions are one and all faulty when tried at the bar of logic. The result, if established, must be regarded as

subsidiary to the positive arguments which go to prove that only on a theory of interaction can room be found for mechanism and teleology in one world as higher and lower manifestations of a single principle. If both contentions are valid, they between them bring interaction as a principle in Cosmology under Bradley's canon that "what can be and must be therefore is". I should like to end this lengthy paper with two brief words of caution. The first is, that our result has only vindicated interaction as the best working theory within the limits imposed by a view of things which makes no pretension to be necessarily final. In the last resort interaction must share the same fate as transeunt causality in general. But there are many scientific and even philosophical purposes for which we may leave the metaphysical questions connected with transeunt causality out of consideration. Again, there are many psychological purposes —perhaps one might say it of most special psychological purposes—for which it is indifferent whether we elect for interaction or for parallelism. Thus, as far as the special psychological results of Stout or Ebbinghaus are concerned, it would have made no difference if they had rejected the parallelistic doctrine. It is, in the main, where we are dealing with broad practical questions as to the relation of human purpose to our human environment that a decision as to the relative truth of the views of human action to which the two theories logically lead becomes really important. The philosophical value of the interaction theory is thus, to my mind, that without necessarily proving purposive human activity ultimately real, it logically permits of our regarding it as at least a phenomenon *bene fundatum*, whereas parallelism, strictly interpreted, seems to reduce it to something unpleasantly like a mere illusion. Hence to commit ourselves in Psychology to parallelism would be wilfully to reject what is at least a higher relative truth.

III.—MEINONG'S THEORY OF COMPLEXES AND ASSUMPTIONS (III.).

By B. Russell.

It remains to establish, if this be possible, the principle that all presentations and all judgments have an object which is not merely immanent; and here, although the favourable arguments appear to me overwhelming, I must admit that the explanation of falsity presents grave difficulties. Let us, however, first consider the matter without regard to these difficulties.

Meinong holds—so it would seem—that the object of a presentation is sometimes immanent, but at other times not so; while the object of a judgment—which he calls an Objective, and I call a proposition—is always merely immanent (p. 257). Now for my part I do not see how an immanent object differs from no object at all. The immanent object does not exist, according to Meinong, and is therefore no part of the mental state whose object it is; for this mental state exists. Yet, although not part of any mental state, it is supposed to be in some sense psychical. But it cannot be in any way bound up with any particular mental state of which it is the object; for other states, at other times and in other people, may have precisely the same object, since an object or a proposition can be presented or believed more than once. I confess these facts seem to me to show, without more ado, that objects and propositions must always have being, and cannot be merely imaginary *relata* for what appears as a relation of presentation or judgment.

But let us examine directly the nature of the relation involved in judgment; and, in order to eliminate, to begin with, the problem of error, let us suppose the judgment to be correct. Suppose, for the sake of definiteness, that our judgment is "A exists," where A is something that does as a matter of fact exist. Then A's existence, it seems plain, subsists independently of its being judged to subsist; for, if this were not so, the judgment would be erroneous. In this case,

the Objective of the judgment—at least in the view of common sense—is as truly independent of the judgment as is A itself. But the peculiarity of the cognitive relation, which is what we wish to consider, lies in this: that one term of the relation *is* nothing but an awareness of the other term—an awareness which may be either that of presentation or that of judgment. This makes the relation more essential, more intimate, than any other; for the relatedness seems to form part of the very nature of one of the related terms, namely of the psychical term. This does not occur in any other relation that I know of; at first sight, it is as if, when A is greater than B, A were itself "excess over B". And yet it is different from this; for cognition is not awareness of a cognitive relation to an object, but only of an object. It seems, again, as though the psychical side were a complex, of which the other side formed a constituent; and this, I suppose, is what is meant by the immanent object: the object, in this view, enters always as an element into the cognition, even when there is, apart from the cognition, no object cognised, which is supposed to be the case with error. Here again, however, the very great difficulty of thinking of contents, as opposed to objects, has caused a confusion; there is no way of describing a particular judgment except as the judgment that so-and-so, *i.e.*, by means of its object. But the judgment itself, in its purity, as something wholly psychical, is merely the content and the act: the object is not a part of the judgment. Thus the psychical side is not really a complex of content and object; and therefore the "immanent" object may be discarded.

But now we are confronted with one or other of two alternatives. Either a presentation or judgment may be wholly destitute of an object, or else false propositions subsist just as much as true ones do. For false propositions may be assumed and even (unfortunately) believed. Let us endeavour to state the grounds for and against both views.

Direct inspection seems to leave no room whatever for doubt that, in all presentations and judgments, there is necessarily an object. If I believe that A is the father of B, I believe something; the subsistence of the something, if not directly obvious, seems to follow from the fact that, if it did not subsist, I should be believing nothing, and therefore not believing. And it is plain that others may believe the *same* thing; this, however, might be regarded as implying only sameness of content. Again, it is possible to count propositions, to make classes of them, and so on; but in doing so it is by no means necessary to confine ourselves to

true propositions. It is a recognised principle that, if p implies q, then not-q implies not-p; but here, if p and q are true, not-p and not-q are false; thus, if, apart from judgment or assumption, there are only true propositions, there will be a gulf between "p implies q" and "not-p implies not-q," since the first will subsist, but not the second; but of such a gulf no trace is to be seen. Further, the proposition "p implies q" may be true, though p be false: but in that case, since p is merely mental, the whole proposition will be merely mental, which we supposed true propositions not to be. And so throughout, the attempt to make a difference, as regards subsistence, between true and false propositions, leads to countless difficulties and to countless conflicts with what appear to be obvious facts.

It may be urged on the other side, first of all, that the argument that a content implies an object is one which makes the relation of content and object different from every other (except that of whole and part): in every other case, though a complex implies a relation, neither of the *inferiora* of the complex implies this relation. The supposed implication, it may be urged, arises solely from the fact that the content is elusive, and becomes confounded with the cognitive complex even where there is no such complex. And directly, if we consider a relation R between a and b, we should say, when it is false that this relation holds, that there is no such thing as the relation R between a and b. But this argument has been already disposed of, by the contention that the being of this relation is not what the proposition "a has the relation R to b" really affirms. Yet, when we consider such complexes as "the difference between a and b," which must be admitted by some door, it seems plain that, when a and b are identical, there is no difference between a and b, which seems equivalent to "the difference between a and b does not have being". Consider, again, what it is we mean when we judge. At first sight, we seem to mean that a certain proposition is true; but "p is true" is not the same proposition as p, and therefore cannot be what we mean. And the complex "p's truth" may be assumed just as p may: as assumed, it is not a judgment. Thus, when we affirm p, we are concerned only with p, and in no way with truth. This seems to show that truth and falsehood cannot lie in the Objective of the judgment; but that we affirm truly when the judgment has an Objective, and falsely when it has not.

The facts concerned may be summed up in the following survey.

I. Among objects there are two kinds, the simple and the complex. The latter are characterised by a certain kind of unity, apparently not capable of definition, and not a constituent of the complexes in which it occurs. On one view, a complex is the same thing as a proposition, and is always either true or false, but has being equally in either case; on the other view, the only complexes are true propositions, and falsehood is a property of such judgments as have no Objectives.

II. Two distinct attitudes occur towards objects, one that of presentation, the other that of judgment. The latter is only possible towards complex objects, but the former is possible towards all objects. We may say that the first gives acquaintance, while the second gives knowledge, or at least belief. These two attitudes towards the same object differ both as regards the act and as regards the content. Adopting Meinong's terminology, according to which words *express* a state of mind, but *indicate* (*bedeuten*) an object, "the death of Cæsar" and "Cæsar died" indicate the same object but express a different state of mind: the former merely apprehends the object in question, while the latter asserts it; the former is an *assumption*, the latter a *judgment*.

III. On one view, knowledge is the affirmation of a true complex, error that of a false one. Affirmation must not be regarded as affirming that the complex in question is true, for this is a new affirmation, having a different complex as object; affirmation has as object merely the complex in question. On the other view, judgment has no object except when the object is a *true* proposition; an erroneous judgment is one which, though it seems to have an object, really has none. On this view, truth and falsehood apply most fitly to judgment; the object, when there is one, may be called a fact.

Between the two views here suggested, it is not easy to decide. For the purpose of reaching a decision, I shall enumerate five theories of knowledge, which appear to cover all, or nearly all, that have hitherto been suggested. I shall then resume the whole discussion from a general point of view.

The five theories of knowledge are as follows:—

(1) It may be urged that the knowledge does not differ from what is known, *i.e.*, there is no *object* of knowledge.

(2) We may admit the distinction of content and object, but hold that the latter is merely immanent.

(3) We may hold that the object is immanent when false, transcendent when true.

(4) We may hold that when a judgment is false there is no object; but when true, there is a transcendent object.

(5) We may hold that the object is always transcendent.

These theories may be held both with regard to presentation and with regard to judgment; but in the case of presentation we shall have, in place of (3), that the object is transcendent when it exists, or when it has being (these are alternatives), and that otherwise it is immanent; with corresponding modifications in (4). Thus (3) requires that the theory of propositions should be developed before the theory of the transcendence of presentations. This seems to be Meinong's view, and to give the reason why he considers the transcendence of presentations to be derivative from that of judgments. Of the above views, Idealism oscillates between (1) and (2); Meinong holds to (3) in regard to presentations, and (2) in regard to judgments, common sense seems to prefer (4), Frege and Mr. Moore advocate (5). Let us examine them in succession.

(1) The theory that a presentation or judgment has no reference outside itself to an object seems sufficiently refuted by direct inspection; this argument has been adequately developed by Meinong. It is also incompatible, as regards presentations, with the obvious difference of content and object, as, *e.g.*, that the presentation of redness is not red, that the presentation of extension is unextended, that the presentation of the past may be present, and that the presentation of the non-existent may exist. It leads also, in the case of presentations, to absolutely insoluble logical difficulties as regards identity. For, in this view, the whole realm of entities must be composed of particular psychical entities, and it becomes impossible to say in what respect two presentations agree which, in ordinary language, are said to be of the same object. If we say that they resemble one another, we can only mean that the judgment that they resemble one another exists, and this, in turn, can only mean that some one judges that this judgment exists, and so on. And if we say that strictly the *same* presentation may exist in different instances, this again can only mean that some one judges it to be so. In short, no logic is possible which does not admit identity to be independent of any judgment as to identity; and this decides that outside judgment there are objects and there is identity; and that there is identity outside judgment decides that some judgments at least have a transcendent object.

(2) To admit the distinction of content and object, while holding that the latter is merely immanent, is a theory which

is difficult to state precisely, owing to the doubt as to what is meant by an "immanent" object. Internal perception, Meinong says, gives not only the content, but also the immanent object, of a presentation; and this fact constitutes, he admits, a fundamental problem in the theory of knowledge (*Gegenstände höherer Ordnung*, p. 207). Now it certainly would seem, so far as inspection can show, that any perception of a presentation involves also perception of an object. But here, I think, the greatest care and subtlety is required to avoid confusion. If all awareness be, as it seems to be, awareness of an object other than itself, then, when we are aware of an awareness, we are necessarily aware of an awareness of an object, and in this way the object seems to be also perceived. But I do not think this is really the case. The content being awareness of an object, the perception of the content involves the object as much as, but no more than, the content itself does. It is better and simpler, therefore, to study contents themselves, rather than the perception of them.

When we consider the presentation of something simple, say redness, it is evident that the presentation and the object are distinct. It is further evident that, if there be an immanent object at all, there is also an object which is not immanent. For, if this be denied, there can be no such thing as awareness of what is not part of the present psychical state: since awareness of an immanent object will not really be awareness of what is past in time or removed in space or otherwise distinct from my momentary thought. Thus the problem will arise as to the relation of the immanent object to the transcendent object; and identity is the only possible relation. And here it may be worth while to criticise the notion that truth consists in the correspondence of ideas with reality. This can only mean, as Meinong points out (*Annahmen*, p. 125), the correspondence of the immanent objects of ideas with reality, *i.e.*, with the transcendent objects. But there is a difficulty in the mere supposition of non-correspondence: for an idea can only fail to correspond with an object by being the idea of something else; and in that case, the correspondence exists, but directed to a different object. People have in mind, apparently, such a case as failure to recognise a person: I see John coming along the road, and I think it is Peter. Here, it is supposed, the immanent object is Peter, and the transcendent object is John. But this is an error: for the immanent object is "Peter is walking along the road"; and the fact that John is so walking is in no sense the transcendent object, but at most the *cause*

of the erroneous judgment about Peter. Thus if there are immanent as distinct from transcendent objects, it would seem that erroneous judgments do not have transcendent objects at all.

But let us return to the analysis of awareness itself. In the case of presentation, to begin with, truth and falsehood do not occur; the presentation is of such and such an object, and a mistake as to what its object is would be a mistake in reflective analysis, not in the presentation itself. We have to consider the question: Is the presentation of a simple, such as redness, itself simple? If, as Meinong contends, it consists of content and object, then plainly it is not simple; it is a complex with a relation. But he admits, as indeed is evident, that the object, even the immanent object, does not exist in the presentation; consequently it seems to follow that the immanent object does not form part of the presentation; for any part of an existent exists. If, however, it is not part of the presentation, it seems not in any sense psychical, except when it happens to have formed part of some other psychical state. This argument seems to dispose of the immanent object.

Nevertheless, awareness is utterly unlike other relations, except that of whole and part, in that one of its terms presupposes the other. A presentation, we said, must have an object; and it seems plain that every awareness must be awareness *of* something: if there were no object, the awareness would be of nothing, and this seems impossible. It is not maintained, of course, that the object must *exist;* that would be to maintain that a certain specific proposition must hold of the object, whereas all that seems essential is that there should *be* such an object; and the assertion of being, if not analytic, is yet more nearly so than any other assertion. Thus, although the object does not imply the content, the content does imply the object and the relation of content to object. In this, the relation in question distinguishes itself from all others except that of whole and part; and this fact probably accounts for the supposition that the object is part of the presentation. We have here a complex of an absolutely unique kind, where, though one term is prior to the complex, the other term is not, but is logically on a level with the complex and the relation. This makes the position of contents quite unlike that of other *inferiora* in complexes.

Thus the notion of a merely immanent object of presentations must be abandoned; but it remains to examine the case of judgments. Here the matter is complicated by error; for, though all presentations are alike in being awarenesses of

objects, judgments differ by the fact that some are correct and others erroneous. In the case of such as are correct, the transcendence seems quite undeniable: there is a *fact*, of which we are aware, and the judgment is correct because of the fact. Things which exist, for example, really do exist, and are not merely judged to exist; for, if so, the judgment that they exist would only exist if some one judged that it existed, and so on through a vicious regress. Thus correct judgments have a transcendent object; but with regard to incorrect judgments, it remains to examine whether (1) the object is immanent, (2) there is no object, or (3) the object is transcendent. These possibilities constitute the third, fourth and fifth of the above theories.

(3) We are now to suppose that true judgments have a transcendent object, while false ones have an immanent object. It must be objected *in limine* that the meaning of the phrase *immanent object* is obscure, and that our previous arguments in the case of presentations are still in large part applicable. But special objections apply to this theory. It will be necessary to suppose that correct judgments also have immanent objects; for, if not, it is hardly to be supposed that this difference of correct and erroneous judgments would be imperceptible, as it certainly is. But if so, we have the reduplication of immanent and transcendent objects which we found inadmissible in the case of presentations. Again, it is very hard to suppose that nothing is objectively false. Suppose, *e.g.*, that A differs from B. This, being true, is objective and transcendent. But, in that case, "A is identical with B" would seem to be objectively false. This, however, the theory will deny, though it must admit that "A is not identical with B" is a judgment having a transcendent object. It seems quite impossible to maintain, as this view requires, that a negation may be transcendent, when the corresponding affirmation is not so. To meet this, we might maintain that correct judgments do not always have transcendent objects, but only when they are affirmative. This modification will be considered under (5); for the present it seems plain that (3) is untenable.

(4) All the arguments—and they are certainly not contemptible—which apply against transcendent objects in the case of erroneous judgments, apply, when the immanent object is discarded, in favour of the view that in such cases there is no object at all. When we examine the transcendent object of (say) a correct existential judgment, this object

seems to be the actual existence of an object. It is easy enough to convince ourselves that this existence is a fact, and that we are aware of the fact when we judge. And the same holds of correct judgments even when they are not existential: they have as objects what, in a wide sense, may be called *facts*, and it is this (it would seem) that makes them correct. But when our judgment is erroneous, the error seems to consist precisely in the absence of such objects: if they have objects at all, these objects are at any rate not facts. If we judge that A is the father of B, we judge as to the subsistence of a relation, which, if we judge correctly, subsists independently of our judgment, and is thus a transcendent object. But if A is not the father of B, then the relation in question does not subsist, and there seems therefore to be no object for our judgment. Nevertheless, there seems to be involved *something* which is not a fact, and this something seems to be other than our judgment and independent of it. Moreover "A is not the father of B" is, in this case, a fact, and seems equivalent to "it is false that A is the father of B". But if this last is transcendent, so is "A is the father of B"; for the whole cannot be transcendent unless the parts are so.

In order to examine this question, several inquiries must be made. In the first place, How do we distinguish the judgment from the corresponding assumption? This we may answer, as before, by the theory that the assumption is the presentation of the same object as is asserted in the judgment. But if so, either all judgments have an object, or else all assumptions are of true propositions; for we agreed that a presentation always has an object. Now it is plain that we can assume the false as well as the true; hence, if only correct judgments have transcendent objects, we shall have to adopt Meinong's view, that assumption is something radically different from presentation.

Accepting, for the moment, the difference of assumption and presentation, we have next to inquire whether any relation of presentations can generate an assumption. For, if this were possible, an erroneous judgment aRb (*i.e.* "a has the relation R to b") might be composed of the presentations of a and R and b suitably related, and might have no corresponding object. Meinong holds that this is impossible. Let us, however, examine the hypothesis afresh. The main point to be noted is, that the presentation of a relation is not itself a relation. Consequently, if the presentation of a is related to that of b, the presentation of R cannot be what relates them. It seems to follow that the

presentation of *aRb* does not have a complexity exactly analogous to that of *aRb* itself; for the presentation of "*a* and *b* related by R" is not the presentations of *a* and *b* related by the presentation of R. And it seems hardly possible that it should be constituted by the presentations of *a* and *b* related by some other relation R'. Nevertheless, if this were the case, the problem in question would be solved. In this view, a judgment would be constituted by a relation between presentations, and the object of the judgment (in the case of correctness) would be constituted by a different but correlative relation between the objects of the presentations. It might then very easily happen that the presentations would have a certain relation when their objects had not the correlative relation. And this would further account for the fact, if it be a fact, that in the assumption or judgment of *aRb*, the presentation of R appears to be absent.

Before examining this theory directly, we may observe that there must always be a relation between the presentations of *a* and *b* when we judge or assume *aRb*; for it seems, as a result of direct inspection, that the presentations of *a* and *b* are always present in such a case,[1] and therefore they must have some relation determined by the nature of the judgment or assumption made concerning *a* and *b*. Consequently, whether or not the judgment or assumption is constituted by a relation of presentations, such a relation is always present, and is determined by the proposition concerned. There is, however, a fundamental and fatal objection to such a view, namely this: that if it were correct, we could never become aware of complexes. For, though we should, in the case supposed, have complexes of presentations, we should not have presentations of complexes, since presentations related cannot beget a new and different presentation. For this reason, if for no other, the theory in question must be dismissed.

We may now consider a different theory, namely this: that the presentation of a complex is not itself complex, but simple. We may, in fact, question what was above assumed as obvious, namely, that the presentations of *a* and *b* are always present in that of *aRb*. Take the complex "*a* existing". It seems certain that, if *a* is redness, say, or anything else that we know as an existent, we do habitually, when we mean to think of *a*, think instead of *a* existing. And this is certainly a complex, constituted by *a* and existence related in a definite way. But in the plain man's image of redness existing, it is very hard

[1] We shall, however, shortly see reason to doubt this.

to discover any separate presentations of redness and existence: the two are amalgamated into one presentation, which, though its object is complex, has not itself the marks of a complex. And this theory would render more intelligible the curious fact that the apprehension of simples, so far from being easy, is possible only to minds with a high degree of philosophical capacity. Moveover, it accounts for the very great difference between the presentation of redness existing and the judgment that redness exists. For in the latter, it seems that the presentations of redness and existence do, in a way, separate themselves in our minds. The process of analysis—a process of which the difficulty is very surprising—would consist, on this view, in discovering the parts and constituents of an object of which the presentation is simple. If the parts existed in the presentation, it is hard to believe that analysis would not be easier than it is.

But when the object is further removed from simplicity than "redness existing," shall we still be able to maintain that the presentation is simple? In cases where a single word exists to express what is meant, this seems still possible. Monarchy, predestination, Parliament, empiricism, degeneracy, and many common words, express ideas of which the objects are quite bewilderingly complex; but it is by no means evident, even if it be true, that the ideas have complexity. On the other hand, where no single word exists, as in (say) "the execution of Charles I.," it seems quite evident, at first sight, that the presentation is complex: we think of executions, and we think of Charles I., and then we bring these two thoughts together. But whether it is the thoughts or their objects that we bring together, probably depends upon circumstances; certain it is that, so long as it is *only* the thoughts, we have not succeeded in thinking of Charles I.'s execution. At any rate, if any great theoretic advantage were obtainable from such a view, we might admit the theory that presentations are never complex even when their objects are so.[1] It is doubtful, however, whether the answer to this question in any way affects our main problem, which is as to the transcendence of erroneous judgments.

The questions involved are these: (*a*) When *a* and *b* do not have the relation R, can there be such an entity as "Relation R between *a* and *b*"? To take a concrete instance, if I have a brown table, is there such a thing as the blackness of my table? (*b*) And, if there is such a thing, is

[1] It may be observed that presentations of complexes exist, and there is some sense in which whatever is a single existent must be simple.

it the object of the judgment "my table is black"? (*c*) And if so, can this object be called false, and what is meant by calling it so?

(*a*) Taking the abstract proposition *aRb*, the first question must be: If the judgment "*aRb*" were *true*, would there be such a thing as "Relation R between *a* and *b*"? This is open to grave doubt. There is a relation R, and there are terms *a* and *b*; but if R relates *a* and *b*, then "Relation R between *a* and *b*" is simply the relation R, together with a reminder that *a* and *b* are related by it. If we try to mend matters by speaking of "*a* and *b* related by R," this again is merely "*a* and *b*, which, as a matter of fact, are related by R". The point of these remarks is, that the whole proposition *a*R*b* seems essential, and that there is no relation particularised by its terms, as opposed to the abstract relation R; nor can we distinguish the terms as related from the terms simply, which as a matter of fact are related. Thus there seems no such entity as the blackness of the table: there is blackness, and the table, and the proposition "the table is black". When the table is black, "the blackness of the table" is merely another expression for the proposition "the table is black"; but it is an expression which is appropriate to the assumption rather than the judgment of the proposition.[1]

(*b*) It appears, therefore, that, if there is such a thing as the blackness of a table which is not black, then this is the object of the judgment "the table is black"; but that, as a matter of fact, "the blackness of the table" is a misleading expression.[2] This view, however, though it may be acceptable in the case of adjectives, such as blackness, seems in other cases less plausible. The view commended by inspection would rather be the following: There is, in any case, a proposition *a*R*b*, and in this proposition the abstract relation R occurs, not the relation particularised by its terms; but in the case where *a*R*b* is true, there is such an entity as

[1] Against the exclusive applicability to the assumption, however, we may set certain cases such as "the blackness of the table is delightful, or beautiful". We cannot assert this if the table is not black; for the assumption can be made in any case, and therefore the world would be none the better for the existence of beautiful objects if only the assumption were relevant. If we admit that there are false propositions, we must admit that these are irrelevant in all ethical judgments: good and bad both apply only to propositions, and among propositions only to such as are true. We can say, however, of false propositions, that they *would* be good if they were true.

[2] Except, of course, where it refers to a particular kind of blackness—a meaning which is here irrelevant.

the particularised relation, whereas, when aRb is false, there is no such entity. This entity, when it subsists, is distinct from the proposition. But the difficulty of this view is to see what it is that is denied when the particularised relation is said not to subsist; and this difficulty seems fatal to the view in question.

(*c*) It is plain that, if aRb, when true, does involve a particularised relation, this is yet not what the proposition aRb asserts; and therefore it is not the particularised relation, nor yet "the blackness of the table," that is true or false. The proposition, it would seem, must be somehow distinguishable from such complexes; but it is very difficult to see what the proposition is.

(5) That even erroneous judgments have a transcendent object, and that this, in some cases at any rate, seems indistinguishable from a complex, appears readily from any concrete instance. Consider: (1) "I went to town yesterday," (2) "Your going to town was most adventurous"; (3) "I did not go to town yesterday," (4) "Your going to town would have been most unwise". Here (1), (2), and (4) are concerned with a certain object, "I (or you) went to town yesterday". This object we will call p. (1) asserts p; (2), presupposing the assertion of p, ascribes an adjective to p; (4), presupposing the denial of p, again ascribes an adjective to p. As to (3), it may be held that this also is concerned with p, and denies it; or it may be held to assert not-p. If these two are distinct, the form of words is equally applicable to either; and we may assume that what is meant is the denial of p, so that here again we shall be concerned with p. Now it is perfectly obvious that the adventurousness and unwisdom do not apply to the judgment, which I make quietly at home; it is not the judgment that exposes me to the risks (whatever they are) that I incurred in London. It is the proposition p, expressed by the judgment, that was adventurous, or would have been unwise. But these adjectives attach to p equally whether it is true or false; and thus the false p must be just as transcendent as the true one. But the difference of *was* and *would have been* must be examined, if this conclusion is to be held indubitable. For *would have been* implies an unfulfilled condition, and this condition, obviously, is the truth of p. Thus (4) does not simply assign an adjective to p; the complete assertion is: "If you had gone to town, it would have been most unwise". This, if we extract the implication of falsehood in the premiss, becomes "p implies that p is unwise". But this implication, as the previous

statement shows, is not held to be true only when p is true: it is regarded as holding equally when p is false. Consequently there must be such an entity as p when p is false. And this applies to all such statements as "p implies q"; if this only held when the hypothesis is true we could not regard it as equivalent to "not-q implies not-p," which as a matter of fact we do hold to be a self-evident equivalence. Thus we must allow false transcendent objects of judgment. And if not, we could not argue as to what would happen *if* p were true, except when p is true; for we here use the hypothesis "p is true," which we suppose to be false. And all deliberation as to the future would be impossible if there were no false Objectives. We may imagine a rhetorically minded soldier in battle saying to himself: "To advance is to die, to retreat is dishonour; better death than dishonour". Here he is certainly not concerned with judgments; if he were, he might escape the painful alternative (as many naïve idealists seek to do), by retreating and at the same time judging that he advanced. And it cannot be said that, if he advances, it ceases to be true that to retreat is dishonour, although he does not retreat; the debate as to which he should do would have been impossible, unless it had been true that each decision entailed its own consequences, though only one decision could become fact. Thus the transcendence of false propositions must be admitted.

The position we have now arrived at is that there are, apart from and independently of judgment, true and false propositions, and that either kind may be assumed, believed or disbelieved.

Before examining the nature of false propositions, let us consider a preliminary question. Are there any propositions containing negations, or is negation merely an expression of disbelief? We have three oppositions to consider: (1) true and false, (2) affirmative and negative, (3) belief and disbelief; and we wish to examine whether it is necessary to distinguish (2) from (3). If, as inspection seems to show, we can discriminate between disbelief in p and belief in not-p, that of course proves that the distinction must be made. But the inspection involved is very difficult, and must not be trusted if it is quite unsupported. There is, however, another quite conclusive argument. Let p be a false affirmative proposition; then p may be either believed or disbelieved, but neither will give us knowledge of any truth. Yet it seems quite obvious that, if we believe not-p, we do know something true; consequently belief in not-p must be something which is not mere disbelief. This proves that there are negative

propositions; but it leaves it doubtful whether disbelief is distinct from belief of the negation: it decides the logical point, but not the epistemological one. It does not decide, however, whether not-p is anything other than "p is false"; and this point is one which I know no way of deciding. It might also be doubted whether the simple assertion of p differs from "p is true"; but here there is more ground for supposing a difference, since truth does not seem to be a constituent of most asserted propositions even when they are true.

It may be said—and this is, I believe, the correct view—that there is no problem at all in truth and falsehood; that some propositions are true and some false, just as some roses are red and some white; that belief is a certain attitude towards propositions, which is called knowledge when they are true, error when they are false. But this theory *seems* to leave our preference for truth a mere unaccountable prejudice, and in no way to answer to the feeling of truth and falsehood. The objection to such a view is not logical, but rather the kind of objection that we should feel to a person who told us that a horse is a pachydermous animal with tusks and a trunk—the description seems, at first sight, to apply to quite different objects from those concerned.

The fundamental objection may be simply expressed by saying that true propositions express *fact*, while false ones do not. This at once raises the problem: What is a fact? And the difficulty of this problem lies in this, that a fact appears to be merely a true proposition, so that what seemed a significant assertion becomes a tautology. It is very difficult to avoid recurring to the notion that a proposition is a judgment, and it might be thought that this is why the statement that true propositions express facts seems significant. But even when this error has been avoided, it *seems* to remain that, when a proposition is false, *something* does not subsist which would subsist if the proposition were true. In this respect, however, when we examine into it, we find that, on the theory in question, affirmative and negative propositions are not on a level. If "A exists" is false, not only A does not exist, but also, we are to suppose, A's existence does not subsist; while, if "A does not exist" is false, A's existence does subsist. The point involved, therefore, comes to this: that it is hard to regard A's non-existence, when true, as a *fact* in quite the same sense in which A's existence would be a fact if it were true. It may be suspected, however, that this apparent difference is not logical, but derived from the nature of perception: all the propositions we perceive are

affirmative, and the word *fact* applies most naturally to propositions which are either perceived or analogous to such as are perceived. It would seem that all the negative propositions which we believe are derived by inference from affirmative propositions, by means of implications of the form "*p* implies not-*q*"; and this seems sufficient to account for the feeling that true affirmative propositions express fact in a sense in which no others do so.

Thus the analogy with red and white roses seems, in the end, to express the matter as nearly as possible. What is truth, and what falsehood, we must merely apprehend, for both seem incapable of analysis. And as for the preference which most people—so long as they are not annoyed by instances—feel in favour of true propositions, this must be based, apparently, upon an ultimate ethical proposition: "It is good to believe true propositions, and bad to believe false ones". This proposition, it is to be hoped, is true; but if not, there is no reason to think that we do ill in believing it.

IV.—IN DEFENCE OF HUMANISM.

By F. C. S. Schiller.

Mr. Bradley's paper on *Truth and Practice* in the July Mind will assuredly mark an epoch in the history of British philosophy.

For it shows (1) that the long-dominant sect of Absolutists are at last arousing themselves to face the new movement which is promising to supersede their doctrines. It shows further, as might have been augured from the stertorous complacency of their repose, that they are awakening in a great state of exasperation. This is a pity, because in this temper they are more likely to miss the new points, which, in philosophy, usually demand the closest attention.

(2) A reply from Mr. Bradley must excite the greatest interest. For though he is incomparably the most brilliant and formidable champion of Absolutism, he has never been an extreme or naïve intellectualist.[1] Hence he, if any one, seemed capable of appreciating a systematic protest against intellectualism. And yet his authority is likely to deter the more intellectualist wing of his party from defending any position he might deem it advisable to abandon.

(3) Mr. Bradley's authority is enhanced by his great literary power, and of this his present paper also makes a lavish display. Indeed its style and tone are so characteristic that in it Mr. Bradley may fairly claim to have beaten his own unrivalled record. And I am sure Mr. Bradley's invective has done good. He has not only liberated his soul, but also cleared the air. And it is milder to treat 'heretics' thus than to organise another Latimer-cum-Ridley affair in front of the Master of Balliol's house, for settling the burning questions of modern philosophy.

Personally, therefore, I have only two regrets. The first is that an incautious phrase in an article in Mind should have

[1] Indeed he could hardly be classified as such at all, but for his definition of will as 'the self-realisation of an idea'.

been taken as a deadly insult by Mr. Bradley. In point of fact the obnoxious clause was not erased in proof merely because the Editor did not think it mattered.[1] I can hardly think, moreover, that if Mr. Bradley had observed that it has been expunged in the more permanent form of the paper in *Humanism*, he would have made such a grievance of it. No doubt I am to blame for an expression which was open to, though not intended for, an invidious interpretation. But it is hard to allude with sufficient delicacy to one of the greatest, and saddest, of the obstacles to the advance of truth, *viz.*, the psychological fact that, as time brings honours and influence, the minds of 'great authorities' grow less elastic and less hospitable to new ideas. The result is that almost every new and important truth has to struggle for its life against the authorities who pronounce it to be logically, because they feel it to be psychologically, subversive, and that the hegemony of a science is held by much the same tenure as was the priesthood of Diana Nemorensis. At the time of its first promulgation were not the great authorities, almost to a man, violently and immovably hostile to the Copernican astronomy, the Newtonian physics, the Kantian epistemology, the Darwinian biology? And seeing that new *methods* in a science are infinitely more valuable than new systems, and that the pragmatic method in philosophy bids fair to be as serviceable as the Darwinian in biology, and will probably transform our whole outlook upon life still more, one had to prepare for the bitterest opposition. These psychological prejudices, however, are not wholly unavoidable; for at any age the receptiveness of a human mind depends largely on its own volitional attitude, and some of the best minds are still active, open and able to assimilate intellectual nutriment at seventy (*e.g.*, Gladstone and Martineau), while others are hopelessly closed and fossilised at thirty. The very fact, therefore, that Mr. Bradley has always seemed to me by far the ablest and most open-minded of his party, seemed a reason for hinting at this to him, even at the risk of a severe rebuff.

My second regret concerns some rhetorical phrases from the preface to *Humanism*. They form about the only passage from my writings which Mr. Bradley sees fit to quote textually, and he enormously exaggerates their scope. It is of course quite true that a new philosophy must chiefly appeal to the young, and that Humanism is well fitted to become

[1] The interpretation of it, if as a personal "insult," simply did not occur to him.—(Ed. G. F. S.)

the philosophy of the men of action, the 'strong and virile'. But to emphasise this could hardly have been meant as a way of recommending its truths to technical philosophers. In point of fact these phrases were intended chiefly for the indolent reviewer of the newspaper press, who cannot be trusted to read beyond the preface of a serious book which he knows he has not the time to digest properly. It becomes thereby a degrading necessity of literature to emphasise the freshness of any novel view, and its divergence from the dominant creeds. Which accordingly the philosophers also have always done, as witness Plato's treatment of the Sophists, and the signal way in which Aristotle's unfairness paid him out in kind. Nor need any more recondite reason be sought for the acrimony against the British school of philosophers by which Mr. Bradley made his reputation. Nevertheless I should never have ventured on Mr Bradley's bold comparison of our present philosophic situation with the siege of Jericho. Not that I am not quite willing to accept the simile, and Mr. Bradley's testimony to the 'jerry-built' character of the walls he has done so much to raise. And this perhaps would be a further reason for making a little noise. On the whole, however, I incline to think that we have had enough of mere battle cries, and should now settle down to serious fighting, if it is still too early for calm investigation.

(4) The new Humanism,[1] I quite agree, does need criticism for its own development. For it has hitherto been able to get itself stated only in so piecemeal a fashion that it may well seem to display to an unfriendly eye a number of gaps, obscurities and even incongruities, to which attention should be called. Of course if the critic can in addition drag to light a real difficulty, or catch the real point, the value of his remarks will be enhanced. But to sling ink is not necessarily to throw light, and the mere airing of infuriated prejudices is likely to end only in the discovery of mares' nests. Even these, however, are not, practically, unimportant. For the Humanist at least will never be tempted to slur over the gulf which separates logical proof from psychological accept-

[1] I prefer this term for several reasons. I agreed with most of the contributors to *Personal Idealism* in preferring *Empirical Idealism* as our title (cp. *Personal Idealism*, p. viii). I have further noted that Prof. Howison, for whom I entertain a great respect, has bespoken the term 'personal idealism' (MIND, N.S., xii., 226). I am not, moreover, enamoured of double-barrelled names. And finally 'idealism' seems so scandalously vague and ambiguous a term that I somewhat shrink from using it as a label, either for Absolutism, or for what is so much better called Humanism.

ance, nor expect the removal of psychological prejudices in other minds to prove much less arduous than the actual discovery of novel truth.

I propose, therefore, in this paper to consider the objections Mr. Bradley seems to think important.

I.

Mr. Bradley boldly begins with an avowal that he has so far failed to understand the new philosophy.[1] This did not seem a very credible or promising premiss for a critic of Mr. Bradley's calibre to set out from, but long before I had finished reading I found myself entirely in agreement with him. What he had failed to understand, that is, was the doctrine I had maintained; what he had refuted with much superfluous subtlety was a mass of misconceptions which he had developed into misrepresentations, and finally distorted into absurdities entirely irrelevant to my position. Now if these misconceptions had really been contained in a fair interpretation of anything I had said, I should feel duly contrite, and would gladly admit the obligation of removing the occasion for them. In point of fact, however, it is difficult to see how the text of any of my essays anywhere lends itself to any of Mr. Bradley's interpretations, and in the absence of precise references to it, it seems impossible even to conjecture what occasioned them.

Where, if point-blank questions may be put, has Mr. Bradley ever found it stated that 'truth consists in the *mere*[2] practical working of an idea,' or that 'the words true and false have not a specific meaning,' or that 'truth everywhere subserves practice *directly*,'[2] or that 'the *entire*[2] nature of the situation is first made by the idea,' or that an idea's 'agreement or discord with fact other than my will can be excluded,' or that 'the *entire*[2] truth is made by my end and my ideas' and is 'a *mere*[2] deed,' or 'a means to a *foreign*[2] end' or '*merely*[2] what happens to prevail'? I do not ask, *bien entendu*, for literal quotations in support of these dicta, but even for passages which can legitimately be said to

[1] In his controversial methods this does not preclude a subsequent claim to understand it much better than its authors (pp. 322, 333). Afterwards he reaffirms his inability to understand (p. 329), which finally (p. 335) extends itself to all things!

[2] The italics (mine) indicate the points misapprehended. Curiously enough Mr. G. E. Moore in the *Archiv f. syst. Phil.*, x. 3, p. 260, makes this same addition to Pragmatism, out of the fulness of his heart, I must presume, rather than out of the accuracy of his memory. Perhaps he will kindly assist Mr. Bradley in finding '*Belege*'.

countenance them, and meanwhile must question whether Mr. Bradley has at all entered into the pragmatist conception of the 'making' of 'truth' and 'reality'. He has, *e.g.*, wholly ignored or dismissed as unessential[1] such cardinal doctrines as the presence of limiting conditions in each experiment and the voluntary acceptance[2] of a basis taken as factual, the distinction of postulate and axiom, the selection and verification of postulates by subsequent experience, and the psychological and social criticism which inevitably purifies the passing wishes of the individual.

Now controversially nothing is more embarrassing than a criticism which is totally irrelevant. To meet it one must either re-state one's own position, or criticise the critic.

In this case I should have been only too glad to show more explicitly what is actually the contention of Humanism regarding the conception of 'truth' and its relation to 'fact,' and how exactly it disposes of Mr. Bradley's difficulties, and achieves what hitherto all idealisms have attempted in vain, *viz.*, the abolishing of the dualisms of 'truth' and 'fact' and 'fact' and 'value'. In view, however, of the spatial limits imposed on me, and the reluctance of my critics to consider the new doctrines in their connexion, I feel constrained to postpone such explanations for the present. Until there are more distinct symptoms of a willingness to consider our solutions, it must suffice to show critically that, whether we are right or wrong, the old doctrine at all events cannot stand.

I must observe, therefore, that even Mr. Bradley can state nothing tenable or coherent on either of the points alluded to. As regards the conception of 'truth' he seems only just to have realised that there is a question as to the 'specific meaning' of the attributions 'true' and 'false' (p. 311). But he excuses himself from telling us what he takes it to be!

On the relation of 'Truth' and 'Fact' he is somewhat more explicit. But as he has not realised how deadly a blow at Absolutism Prof. Dewey has dealt by his admirable proof of the superfluity of an absolute truth-to-be-*copied*, existing alongside of the human truth which is *made* by our

[1] Especially *Personal Idealism*, pp. 54-63 and 95, and *Humanism*, pp. 12, 55-60. Indeed one would not suppose that he had read beyond the Preface in the latter work, but for his strange manipulation of the former.

[2] I am gratified to find the importance of this in the recognition of 'fact' so strongly emphasised by Prof. Royce in his valuable paper on "The Eternal and the Practical" (*Phil. Rev.* for March, 1904). Strictly, nothing further is needed to establish the pragmatic view of 'fact'.

efforts,[1] and still adheres to the correspondence-with-reality view of truth, it is no wonder that he involves himself in terrible embarrassments.

(1) By retaining this view he pledges himself to the assumption that Truth is determined by Fact, by which it is 'dictated'. Fact exists whether we will it or not, whether or not we acknowledge it. It has naturally to be left obscure what part is played by the intelligence which accepts this 'dictation,' and how the facts manage to 'dictate' to us the ideas with which we work and which we have to acknowledge as true, because they are thus called for. And it is manifestly an unanswerable question how we ascertain the nature of the eternal text, the supercelestial Koran, which the dictation reveals, nor can we venture to ask how we are to authenticate the correctness of the dictates we receive. For it must clearly be ignored, that the 'facts' we recognise are always relative to the 'truths' we predicate; that of facts-in-themselves and independent of our knowledge we can know nothing. Neither must we ask whether these imagined facts in their own right are correctly 'represented' by the facts as we take them to be.

(2) But these difficulties are old, and ought to be familiar to all but the naïvest realism, of which Mr. Bradley's language here grows strangely redolent. Let us pass, therefore, to a still more perplexing subject, Mr. Bradley's handling of the subjective activity in the apprehension of 'fact'. For 'truth,' it seems, is after all not mere reproduction of 'fact': the 'right' idea is not merely 'dictated,' it has also to be 'chosen' (p. 311). How then, we ask, can this hapless Truth serve two such different masters? How can it on the one hand adjust itself to human demands and interests, and yet on the other slavishly copy and respectfully reproduce a congenitally 'outer' and already pre-existing 'fact'?

At times we find this subjective influence which goes to the making of 'Truth' called merely a *congé d'élire* (p. 312), *i.e.*, a formality, presumably, which is not held seriously to

[1] Its peculiar deadliness is due to the fact that the absolute idealist can hardly disavow a contention with which he himself is wont to ply the realist, *viz.*, that an existent beyond knowledge, which does nothing to explain knowledge, is invalid, alike whether it is called an 'independent' reality or an 'absolute' truth.

Mr. Bradley, who (for purposes of contrast?) praises Prof. Dewey, also does not seem to have noticed that something not utterly unlike the doctrine of 'doing for doing's sake,' which he vainly tries to fasten on me, appears to be upheld by Prof. Dewey, so that in this important respect his form of Pragmatism would seem to be the most radical in the field.

impair the dependence of truth upon an already determinate 'fact'. And yet in the same breath a 'selection' is mentioned. If this is not to involve volitional preference and acceptance, what can it mean? Surely it is something more than a mechanical registration of an outside 'fact'? Elsewhere it is admitted that our idea "reacts and then makes the whole situation to be different" (p. 311), that "truth may not be truth at all apart from its existence in myself and in other finite subjects, and *at least very largely* that existence depends on our wills".[1] Nay our moral ends in their turn 'dictate' even to truth and beauty (pp. 320-1). Indeed in one aspect at least truth is an ideal construction (pp. 324-5).

Now what are we to make of this double nature of Truth? Is it not clear that if there is to be a real selection there must be *real alternatives*, which can be chosen? And is it not almost as clear that even in a 'forced' choice such alternatives are really presented? Even the poor bread-and-butter fly (now extinct) that would live only on the 'weak tea with plenty of cream in it' which it could not get and consequently 'always died' exemplifies this. We get then this dilemma: if our 'choice,' 'selection' or *congé d'élire* does not affect the rigidity of 'fact,' it is an illusion which ought not even to seem to exist, and we have certainly no right to talk about it: if on the other hand there really is 'selection' (as is asserted), will it not stultify the assumption of a rigid fact, introduce a possibility of *arbitrary* manipulation and lead to *alternative* constructions of reality?

Mr. Bradley's insistence on the 'determinateness' of being does not help us in the least. For he does not specify whether he conceives the determination to be (*a*) absolute, or (*b*) partial. If (*a*), then how is it to be *altered* by our 'reaction'? That too, indeed, must be wholly determinate, and the 'selecting' must be mere illusion. If (*b*) the determination is only partial, it will form the starting-point for alternative modes of operating upon 'fact' and alternative results. That is, 'fact' will be plastic, and responsive to our will.

In short a constructive conception of the relation of Truth to Fact is nowhere to be grasped. Everywhere Mr. Bradley's meaning seems swiftly to evaporate into metaphor or to dissipate into ambiguity. Not that these difficulties are likely to prove a permanent embarrassment. Eventually no doubt some subtlety can be requisitioned from the Christological controversies of the sixth century wherewith

[1] P. 320, italics mine.

to reconcile the 'divine' with the 'human' nature in the body of the one Truth. But at present I cannot find that Intellectualism has anything even apparently coherent to substitute for the pragmatist account it rejects so haughtily

II.

I pass to Mr. Bradley's second point, which concerns the relation of Practice to Theory. The importance of this seems to me to be secondary, both (*a*) because I here find myself more in agreement with Mr. Bradley, and (*b*) because our differences rest largely on the connotation of terms whose meaning is somewhat a matter of convention.

As to (*a*) I should not dream of denying that the end must be "the fullest and most harmonious development of our being" (p. 319), and still less that this "coincides with the largest amount of mere doing"—except in so far as I repudiate the notion of 'mere doing'! It is gratifying also to find Mr. Bradley so emphatic that "every possible side of our life is practical," that there is nothing "to which the moral end is unable to dictate" (p. 320), "and even truth and beauty, however independent, fall under its sway". These dicta seem at least decisive disavowals of the old-fashioned intellectualism, and I should conjecture that, but for lapses of inadvertence, very little more will be heard of it.

My difficulties, however, begin when I try to follow Mr. Bradley's attempt nevertheless to provide for an 'independence' of the theoretical. We are told that though all the ends and aspects of life are practical, yet in a sense they are also *not* practical. There exists, it seems, an attitude of 'mere' theory and 'mere' apprehension, which has indeed 'to alter things' and is thereby 'practical,' but "so far as it remains independent" is "essentially" *not* practice. Both truth and beauty therefore are practical "incidentally but not in their essence" and "at once dependent and free" (p. 320), 'free' in their 'nature,' dependent in their actual functioning. Whether this claims for theoretic truth something like Kant's noumenal freedom and phenomenal necessity it is hard to say. But it is clearly an important article of Mr. Bradley's faith: "we believe in short in relative freedom" and "this is even dictated by the interest of the spiritual commonwealth" and identified with "the independent cultivation of any one main side of our nature" (p. 322).

Now, quite humbly and sincerely, I must here beg for further elucidation. I cannot in the least conceive how this

semi-detached relation is possible. Evidently there is here between us a divergent use of terms which must breed confusion. What (1) means the antithesis of '*incident*' and '*essence*'? And how are they related to Aristotle's συμβεβηκός and οὐσία? 'Essence' clearly does not imply to Mr. Bradley, as it does to a pragmatist, a reference to purpose. But I suppose it means something important. And if so, why is it not divulged? Again (2) does it not evince a serious laxity of terminology to equate a 'relative freedom' with 'independence'? And would Mr. Bradley allow the same equation in another context, *e.g.*, in a pluralistic attempt to derive the 'unity' of the world?

However Mr. Bradley may answer these questions, and indeed whether or not he sees his way to answer them at all, I must once more add that, be the argument coherent internally or meaningless, it is at all events irrelevant. It attacks a position which has never been defended: it fails to repel the real attack. For it is *not* our intention to prove that Theory and Practice are fundamentally different, and foreign to each other, and then to enslave Theory to Practice, Intellect to Will. Something of the sort may possibly be extracted from that great matrix of the most various doctrines, the philosophy of Kant.[1] But we contend rather that there can be no independence of theory (except in popular language) and no opposition to practice, because theory is an outgrowth of practice and incapable of 'independent' existence. And what our epistemology tries to do is to trace this reference to practice throughout the whole structure, and in all the functions, of the intellect. There is no question therefore of degrading, and still less of annihilating, the intellect, but merely one of its reinterpretation. We deny that properly speaking such a thing as pure or mere intellection can occur. What is loosely so called is really also purposive thought pursuing what seems to it a desirable end. Only in such cases the ends may be illusory, or may appear valuable for reasons other than those which determine their value.[2] What, therefore, we have really attempted is to overcome the antithesis of theory and practice, and to unify

[1] I do not say *justly*, because I am convinced that if Kant had been twenty years younger when he attained the light, he would have rewritten his *Critique of Pure Reason* on pragmatist lines. At all events he lays the foundations of Pragmatism in a remark no pragmatist would seek to better, when he says that "*all interest is ultimately practical, and even that of the speculative reason is merely conditional, and only complete in its practical use*" (*Krit. d. prak. Vern.*, II., 2, iii. *s.f.*).

[2] Cp. *Humanism*, pp. 58-60.

human life by emphasising the all-pervading purposiveness of human conduct.

Such attempts at unification are not new, but they have usually been conducted with an intellectualist bias, and with the purpose of reducing all willing and feeling to cognition. And this has often been supposed to be something magnificent and inspiring. I cannot see, however, that there is any greater spiritual elevation in saying *All is Thought* than in saying *all is Feeling* or *Will*. The whole question seems merely one of the convenience and use of psychological classifications. And so when Mr. Bradley wonders (p. 327) what I am "to reply when some one chooses to assert that this same whole is intelligence or feeling," I am not dismayed. I should merely underline the "*chooses*," and beg both parties to observe that this is what they are severally '*choosing to assert*,' and therefore *arbitrary*. *Not more arbitrary*, doubtless, than my own choice, but far more awkward for *their* scheme of classification than for mine. For on mine I should *expect* to find that ultimate questions sooner or later involved *acts of choice*; as indeed I have repeatedly, though perhaps too unobtrusively, pointed out.[1] Moreover, I have expressly guarded myself against this particular criticism by passages in *Personal Idealism* (p. 86) and *Humanism* (p. 53). These no doubt occur in footnotes, but then Mr. Bradley will hardly accuse me of putting too much into footnotes.

Finally, before leaving this part of Mr. Bradley's argument I must say something about his definition of Practice (p. 317) as an *alteration of existence*. This seems altogether too narrow. For (1) the *means* to an alteration of existence must surely be called practical. If Mr. Bradley will not concede this, *cadit quaestio*.[2] For I should never have asserted the absorption of the theoretical in the practical, if I had thought that the means to an end were excluded from the practical. And (2) we do not even in practice always seem to aim at alteration of existence. The *preservation* of the desirable seems frequently to be our end. Again (3) the fruition of the end attained would fall without Mr. Bradley's definition. Whereas to me it would seem intolerable to exclude from Practice, *e.g.*, the *Ἐνέργεια Ἀκινησίας* which forms the ideal of life and the goal of effort. I could wish only that it were practicable, as well as practical!

But even if we accepted Mr. Bradley's definition, we should continue to be perplexed by his ambiguous use of

[1] *E.g.*, *Humanism*, pp. 153, 49, 157.

[2] He finally (p. 334 *s.f.*) seems to concede this.

'practical'. We seem to find the 'practical' subdivided into the practical and the non-practical (p. 319): we are told (pp. 322 *s.f.* and 333) that Mr. Bradley is *clear* (!) that in the end there is no distinction between 'theory' and 'practice'; and then again (what I own I had suspected) that there are several senses of 'practical,' such that what *in one sense* is practical is not so in another (p. 323).[1] Possibly all this is symptomatic merely of a Hegelian contradiction emerging from the bosom of a true idea, and should strike the spectator with silent awe. But I have no head for contradictions, and am minded rather to record one of the last philosophic utterances of Henry Sidgwick, to the effect that 'he had never been able to understand from the Hegelians how they distinguished the contradictions which they considered evidence of error from those which they revered as intimations of a higher truth'.

III.

I hardly know how much notice to take of an apparently casual remark on page 322 to the effect that if I understood my own doctrine, I should have to hold that any end however perverted was rational, and any idea however mad was truth, so soon as any one insisted on it. For subsequently (p. 329) Mr. Bradley seems graciously to decide that he will not attribute so 'insane' a doctrine even to me. Why then did he mention it as if it were relevant? Did he not know that he was merely dishing up an old objection to Protagoras,

[1] In his Note on pp. 332-334 Mr. Bradley recurs to the point in a way which seems to betray a feeling that his first treatment was not wholly satisfactory. After again asserting that the distinction of practical and non-practical is ultimately one of degree, he lays it down that nevertheless a 'practical' activity may be so called "when and so far as its product *directly* qualifies the existence which is altered".—This involves a distinct correction of the definition given before. A little later he admits that "*in a secondary sense* anything is practical so far as it is *taken* as subserving a practical change". —This surely would amply account for the 'perception of a horse' which Mr. Bradley is pleased to call a 'revelation'. For, as the psychologists are daily showing, our very modes of perception are relative to our practical needs. The human eye is not like the eye of an eagle or a cat, because it is *used* differently, and the perception of the horse would never have been attained, unless it had been useful to such of our ancestors as had acquired eyes. Presumably the eyes of Micromegas would be fitted to see a horse as little as Mr. Bradley's are to see a microbe or a ghost.

Mr. Bradley proceeds to state what I can well believe, *viz.*, that he feels joy in calling a spade a spade after he has 'adorned' it with epithets?), but that this is not 'practical' because it is 'æsthetic'. But of course, I should as little admit the 'independence' of the æsthetic as of the logical, and the difficulties are just the same.

the effeteness of which even Plato was candid enough to avow?[1] Since then this caricature has often been exposed, most recently in the explicit account of the development of objective truth out of subjective valuations given in *Humanism*, pages 58-60. Its reappearance now that the conceptions of variation and selection are in universal use is simply stupefying, and if it is intended as a serious argument, it shows clearly that Mr. Bradley has yet to grasp the essential difference between an axiom and a postulate. And in any case Mr. Bradley could do his followers a great service if, instead of so crudely travestying my argument, he supplied them with an alternative to it, and showed them how to deal with the empirical existence of the infinite variety in ends and ideas. Or does he not admit this to constitute a scientific problem, and is it merely in "appearance" that our views diverge?

IV.

Mr. Bradley's article is so rich in provocations of all sorts that I forbear to reply to all of them in this paper. Still I should have liked to discuss the difficulties he raises about the conception of Will, which seems to be the only other point which may be thought to possess some relevance to the controversy, did we not seem so far from agreeing on the meaning of the term. And so rather than plunge into a long disquisition on the proper senses of 'Will,' and their proper correlation, I will relinquish the attempt to clear up matters. I will remark only that I can accept Mr. Bradley's second definition of (a depersonalised) Will as "a process of passage from idea into existence" as little as "the self-realisation of an idea," and am curious to know how he gets from one to the other without exemplifying the pragmatist doctrine that definitions are relative to purpose. Moreover, it seems to me exceedingly arbitrary and inconvenient to deny the volitional quality of an achievement simply because the Will has realised itself, and now accepts and sustains the situation it has created. In the theological language Mr. Bradley affects in this article, that would be equivalent to the assertion that because God is the Creator, He cannot also be the Sustainer, of the universe. I conclude therefore by pointing out that all the arguments which Mr. Bradley bases on *his* conceptions of Will are to me, once more, corrupted by irrelevance.

I shrink, similarly, from meeting many other interesting

[1] *Theætetus*, 166-7.

points (most of them highly barbed !) with which Mr. Bradley's paper bristles. I cannot really now gratify his curiosity about (p. 315) Prof. Bain's theory of belief (which I have always found it very hard to recognise in the account given of it in Mr. Bradley's *Logic*), or Individualism (p. 317), or Hedonism (p. 318), or Evil (p. 314), or Pluralism (p. 327), or Mysticism (p. 315), or Polytheism (p. 316), or Error (p. 326), or Erotic Philosophy (p. 333), though I fully admit the suggestiveness of his remarks. But I should be pleased to tell him, privately, why I once wrote *Man* with a capital (p. 328).

On page 331 Mr. Bradley appears to summarise under four heads that part of his paper which may be called argumentative. In the *first* charge that 'the whole essence' of truth has been subverted, I would read 'analysed' for 'subverted'. The *second* calls it 'a thoughtless compromise' to treat the result of past volitions as being my will and choice. But why a 'compromise'? With whom or what? What have I compromised but Mr. Bradley's preconceptions, by declining to ignore the volitional acceptance in the recognition of 'fact' or to plunge into the flagrant contradictions of his own account? And why 'thoughtless'? Because it does not lend itself to Mr. Bradley's travesties? The *third* charge is partly irrelevant, in so far as it rests on definitions of 'will' which I reject, partly answered by the account I have given of the factual basis in our cognitive procedure.

As for Mr. Bradley's *fourth* difficulty I must own that I should never have guessed from his very perfunctory and obscure exposition of it that he attached any particular importance to it. And even after I had perceived that it was to be made into a capital charge, it failed to impress me. And so it seems sufficient to point out that if knowledge be conceived as secondary without being *divorced* from action, and if due reflexion is thus rendered a useful habit, there is no paradox in holding that it may also profitably reflect on its own genesis. So far from condemning philosophic reflexion, I could even wish that its use, especially when conducted on the right humanist lines, were more extensive.

V.

I would gladly conclude with these replies, were it not that Mr. Bradley's paper exhibits also some striking features which, although they do not strictly enter into its logical texture, seem calculated to arouse prejudice, and therefore imperatively demand notice.

I was greatly surprised by the general air of *religiosity* in which Mr. Bradley had enveloped himself. I looked in vain for my beloved *bête noire*, the Absolute, and wondered why it had been sent to dwell with Hegel in eternal night. In its place I found not only the old ambiguous 'God' in all its philosophic deceptiveness, but even allusions to the Jehovah of Mr. Bradley's youth, and wondered why the Baal of Jericho received no honourable mention. Now, as I had always respected Mr. Bradley's philosophy for never seeking to curry favour with the 'orthodox' by playing on ambiguous phrases, I was naturally greatly puzzled by this change of face. Was it to be respected as an indication of a change of heart, of a pathetic recrudescence of what Mr. Bradley had learnt (or "imbibed") in his youth about Jehovah (p. 332)? Or were we witnessing a strategic movement of the absolutist host, necessitated by the unexpected force of the enemy, and a recoil of its 'left' upon its 'right' wing? Or lastly, was it to be interpreted, less charitably, as an attempt to enlist religious prejudices against the new philosophy by unfair appeals to a few travestied formulas of a musty theology?

The last seemed the boldest and riskiest strategy, and I am far from attributing it to Mr. Bradley. But I feel that we must safeguard ourselves against an interpretation and an impression which his language may countenance. I must protest therefore against the insinuation that because our views do not conform with the dogmatic definition of religion it has pleased Mr. Bradley to impose, we may fitly be branded as irreligious and as blasphemers against the deity whom Mr. Bradley so strangely denominates "the lord of suffering and of sin and of death" (p. 315). Now I am well aware that the definition of religion is a difficult matter, and that many of its empirical manifestations accord ill with any of its definitions. But since the publication of James's *Varieties of Religious Experience*, I should have thought that there were two things that even the hardiest apriorist would have shrunk from. The first is dogmatising concerning what religion *must* mean, without troubling to inquire what *psychologically* the various forms of religious sentiment *have* meant. Now if Mr. Bradley had condescended for a moment to contemplate the objective facts of concrete religion, he could not but have been struck with the fact that Humanism has the closest affinities with such important religious phenomena as Newman's 'grammar of assent' and the widespread theology of Ritschl. And from James also he might have learnt that amid all the varieties of

religious feeling the one most constant conception of the divine has been, not some desiccated formula about the Unity of the Universe, but a demand for *something* to respond to the outcry of the human heart.

I should have thought, therefore, secondly, that whatever might be said about the logical subversiveness of the new views, their value for religion was secured against attack. For has not James's doctrine of the Will to believe made manifest the pragmatic value of faith, and put the religious postulates on the same footing with those of science? Nay, has not the common charge against us been that our doctrines pander to all the crudest superstitions of the vulgar? Mr. Bradley, I suppose, acquits us on this charge; but his own is far less plausible.

And when one remembers further how Mr. Bradley has himself described religion as mere 'appearance' riddled with contradictions and denied that "a God which is all in all is the God of religion," [1] it seems—well—slightly humorous to find him now setting up standards of 'orthodox' theology and solemnly anathematising those who have doubted the omnipotence of *their* 'God' and the religious value of *his* (p. 331, cp. p. 316). One is inclined merely to retort in the words of Valentine—"*Lass unsern Herr Gott aus dem Spass*".

Mr. Bradley must have been well aware that his language was wholly 'popular'. He must have known, as well as Dr. Rashdall or I, that the 'omnipotence' he claims for his Absolute is *not* the 'omnipotence' of the theologians, nor is the latter obviously identical with the superhuman power adequate to all human needs which the religious sentiments seem to postulate. He must know too that in *no* religion is the Divine, the principle of Help and Justice, ever actually regarded as omnipotent in practice. Again, seeing that he has plainly shown us that his Absolute possesses the religious attributes only as it possesses all else, and that for all human purposes it is impotent and worthless, was it not most injudicious to attack our 'orthodoxy'? And has he not justly provoked the retort that *we* feel his whole Absolutism to be a worthless technicality, if its true character *is* revealed, and a fulsome fraud upon all man's most sacred feelings, if it is *not*?

VI.

Curiously enough, however, Mr. Bradley's paper does not close with the enigmatic piety which has provoked these

[1] *Appear. and Real.*, p. 448 (1st ed.).

comments. It is followed by a fit of agnosticism which might have come straight out of Herbert Spencer's *Autobiography*.[1] The promise of philosophy "even in the end is no clear theory nor any complete understanding or vision"; "its certain reward is a continual evidence and a heightened apprehension of the ineffable mystery of life". Only Spencer and Mr. Bradley tend in opposite directions: the former feels that this final incomprehensibility is a "paralysing thought," and inclines towards the authoritative dogma of some religion that will claim to know; the latter seems to regard it as edifying, and abandons the religious formulas to disburden himself of his contradictions in the bottomless pit of the Absolute. To the one religion holds out *more* hopes of knowledge than philosophy, to the other *less*. But as a satisfaction to the philosophic craving, to the will-to-know, neither policy, alas, seems to promise much. The philosopher's reasoning is rewarded merely with the sorry privilege accorded by Polyphemus to Odysseus.

For what profit is it, if break down it must, that it should perish somewhat later? What a satire too it is upon a philosophic quest that started with the most confident anticipations of the rationality of the universe to have to end in such fiasco! Can Mr. Bradley wonder, if this is really all his philosophy can come to, that philosophy is disregarded and despised, or that other philosophers prefer to bend their footsteps in more promising directions? And it seems still stranger that it should be deemed appropriate to scathe all fresh attempts at exploration with unmeasured contumely *a priori*. Surely a somewhat humbler and less 'hybristic' note would better become the actual situation!

VII.

I note indeed with satisfaction that in places Mr. Bradley seems to evince some dim consciousness of the real predicament. At all events he is growing more liberal in throwing open for discussion questions which we have always been assured on his side had been definitively closed. I welcome, therefore, and note for future use, Mr. Bradley's admission of "well-known difficulties" in the infinity of God (p. 331), his description of pluralism as "a very promising adventure," and the "pleasure" it would give him to learn that its difficulties can be surmounted (p. 327). The tone of these admissions, it is true, still smacks of the judge who was 'open to conviction, but by Jove would like to see the man who

[1] Cp. ii., pp. 469-471.

could convince him'. And he hastens to add that there are 'obvious difficulties' (not stated) on the other side. Nor does he make it clear why, if real antinomies exist on these points, he should have so decisively adopted the one alternative, instead of suspending judgment and looking out for a real solution.

But on the whole I read these admissions as a hopeful sign that the dwellers in 'Jericho' are not so content with their gloomy ghettoes as they had seemed, nor so sure that it is in very deed the heavenly Jerusalem. Ere long they may come out to parley of their own accord and offer us terms, nay themselves dismantle antiquated defences that are useless against modern ordnance! And when the stronghold of the Absolute is once declared an open town, no longer cramped within walls, nor serving as a strait prison for the human soul, it can be refurbished and extended for those to dwell in whose tastes its habitations please. We too shall then have no further motive to molest an Absolutism which has ceased to be a menace to the liberty of thought. We may still decline to go to 'Jericho,' and prefer the open country, abiding in our tents with the household gods who suffice for our needs and need our co-operation because of their "pathetic weakness".[1] But why should we contend against Absolutes like Prof. Taylor's, which is finally reduced to an emotional postulate,[2] or Prof. Royce's[3] genial conception, which becomes the ultimate satisfaction of our social instincts and forms a sort of *salon* where all are at home and can meet their friends, so long as we escape the grim all-compelling monster of Mr. Bradley's nightmare? And when we are no longer treated as Ishmaelites, there will be peace in the land, a peace attained, not by what must surely by this time seem the impossible method of snubbing and snuffing out the new philosophy, but by a mutual toleration based on respect for the various idiosyncrasies of men. Nor will there then any longer be occasion to reproach Philosophy that its favourite *idolon fori* is simply Billingsgate.

Life will be easier in those days, with it philosophy. For philosophers will have ceased to confound obscurity with profundity, difficulty with truth, and to expect that because some truths are hard, therefore all hard sayings are true. Nor will they any longer feel aggrieved, like Mr. Bradley (p. 335 *s.f.*), at the prospect of everything that would render

[1] In Dr. Bussell's striking phrase (*Personal Idealism*, p. 341).

[2] *Elements of Metaphysics*, p. 317.

[3] *On the Eternal and the Practical.*

philosophy easier and more attractive. For they will realise that the intrinsic difficulties of thinking as an exercise of faculty will always suffice to preserve the 'dignity' of philosophy, and that it is needless to enhance them by adding unintelligibilities and aimless word-play.

Philosophy will always be hard, I agree. In some respects and for three reasons: because thinking is the hardest of exercises, because it presupposes much special knowledge to grasp the *use* of general conceptions which are devoid of meaning in abstraction from the experience they serve to organise, and because to rethink *old* conceptions into *new* ones is irksome and frequently demands a flash of insight before we can really 'see' it all. But one might well despair of the human reason if what had once been clearly thought could not always be lucidly expressed. And so there exists no reason for making Philosophy anything like so hard, repulsive and unprofitable as the systems with which we have been cowed too long.

In conclusion I must deplore that this paper has had to be so polemical that it has had to leave unnoticed many points of agreement between Mr. Bradley's views and mine. But though in his polemic zeal Mr. Bradley also has failed to emphasise them, they are clearly growing, and if they are studied, more particularly by those friends of his from whose failure to understand he appears to have derived so much comfort (p. 329), it will be vain to deny that Philosophy has really been progressing.

V.—FRESH LIGHT ON MOLYNEUX' PROBLEM. DR. RAMSAY'S CASE.

By T. K. Abbott, B.D., Litt.D.

Molyneux' problem, as my readers will doubtless remember, was as follows:—

"Suppose a man born blind and now adult and taught by his touch to distinguish between a cube and a sphere (suppose) of ivory[1] and nighly of the same bigness, so as to tell, when he felt the one and the other, which is the cube and which the sphere. Suppose then the cube and sphere placed on a table, and the blind man made to see; query, whether by his sight alone, before he touched them, he could now distinguish, and tell, which is the globe, which the cube."

It will be observed that the problem is reduced to a very simple form. The subject of the experiment is to be told that one of the objects presented to him is a cube and the other a sphere, and he is only asked to say which is the sphere and which the cube. Molyneux answers his own question in the negative. "For, though he has obtained the experience of how a globe, how a cube affects his touch, yet he has not yet attained the experience that what affects his touch so or so, must affect his sight so or so; or that a protuberant angle in the cube, that pressed his hand unequally, shall appear to his eye as it doth in the cube." The reasoning seems inconclusive when the question put is only which of the two objects is the cube. Locke says that he agrees with Molyneux, but it is curious that while doing so, he substitutes for Molyneux' expression "by his sight" the very different one "at first sight".

Berkeley came to the same conclusion by a different path, holding as he did that the ideas of extension as given by sight and touch respectively have no resemblance or homogeneity whatever. He thought, however, that Locke on his

[1] Locke has "of the same metal".

own principles ought to have judged otherwise; for, he says, "it is no more but introducing into his mind, by a new inlet, an idea he has already been well acquainted with". The argument seems convincing, yet a little consideration will show that it requires qualification. For, admitting that the idea of extension is the same whether conveyed by sight or by touch, it does not follow that the patient, in the case supposed, should be able by sight to perceive a sphere as a sphere or a cube as a cube. In fact, even experience cannot enable us to do this. If the question were only that between Locke and Berkeley, *viz.*, whether the ideas of extension given by sight and touch respectively be of the same kind or entirely heterogeneous, it would be better to test the patient with a ring and a cross, rather than a sphere and a cube. But even with this simpler form of the experiment, we must bear in mind that the blind man's perception of extension has been invariably associated with tactual sensations, which indeed are predominant; so that the necessary dissociation may require time and attention. Also the new visual perception of extension is complicated with a perfectly new and puzzling set of sensations.

In illustration of this I may point to the fact that if we have been reading, say Gothic characters in red on a blue ground, and then are presented with characters of a similar kind in blue on a red ground, we do not at once recognise them. A still more striking illustration is furnished by the engravings issued in the time of the first French Republic, and circulated amongst the Royalists. These consisted sometimes of figures of trees, the outline of which comprised profiles of members of the Royal family, which when once pointed out could not be mistaken. Nevertheless, the figures might be often looked at without the observer having any suspicion that they contained any profiles at all. Yet it was only a question of viewing the outline as the boundary of the blank instead of the printed space, the intelligible figure of the tree forcing the attention. Puzzles based on the same principle were widely circulated a few years ago.

It is no doubt very difficult, perhaps impossible, for us with our life-long habit of visualising absent objects, or those which we handle in the dark, or with shut eyes, to put ourselves in the position of one who on first acquiring sight has to reproduce in imagination a tactual perception. Nevertheless it is not unreasonable to expect that in the case supposed the subject of the experiment would be able to discriminate correctly between the two figures. For as the

eye or the attention[1] travels round the outline of the circle it does so in a uniform manner and without check or interruption, whereas in the case of the square there is an abrupt change of direction, and this might be expected to recall the change experienced by touch, not perhaps so as to identify them, but at least so far as to enable the person in question to say which of the two figures is the sphere. This is on the extreme supposition that the patient is not allowed to move his head so as to view the figures from different sides. To Leibnitz the affirmative reply to Molyneux' question appeared indubitable, for in the globe all is uniform, whereas the cube has eight points distinguished from all the others (not eight visible, however). "I do not speak," he says, "of what he would do at the moment, being dazzled and confounded by the novelty, and besides, not accustomed to draw inferences." He adds the striking remark that if it were otherwise the born blind would be unable to acquire even the rudiments of geometry, which we know they are capable of doing. The same view is defended by a Mr. Synge in a letter to Molyneux included in Locke's Works. But the most detailed examination of the problem is that by Dr. Jurin in a note in Smith's *Optics* (1738), in which he points out that the patient in question must be supposed to be at liberty to view the figures from all sides; in doing which he would find that the globe always presented the same aspect, whereas the cube varied.

(Dr. Jurin's note would be worth quoting were it not that we are proceeding to the experimental verification.) This was also the view taken by Dr. Franz, who writes: "The supposed person will certainly be able to distinguish by his sight the cube from the sphere, though he will not, it is true, recognise the two figures as a *cube* and a *sphere*, but will

[1] I say "the attention," for motion of the eye is not necessary. J. S. Mill indeed, holding that 'extension' is only a succession of muscular sensations, affirmed that the eye could distinctly see only one point or spot, so that the visual perception of a circle involved, or rather was, the consciousness of a series of eye movements. That this is not so is proved by the phenomenon of after-images. An excellent example is furnished by Messrs. Pears' advertisement, in which the letters PEARS in red occupy the middle of a circle. After looking at this for a few seconds, when we look away we see the same letters in the complementary colour. I frequently pass a blackboard on which VISITORS is painted in white letters; the after-image consists of the same word in black.

In such cases the after-image proves that the eye has not moved; and it is also clear that in contemplating the parts of the after-image itself motion is out of the question.

pronounce the one to be a disc and the other a square; it must be premised, however, that some little time must be allowed for the mind to recover from the confused sensation produced by the novelty and multitude of objects suddenly presented to the newly acquired faculty" (*The Eye*, London, 1839, p. 32). Dr. Franz not long after the publication of this treatise had an opportunity of testing the soundness of his opinion. Sir W. Hamilton also expresses the opinion that a slight consideration would show that Molyneux' view was erroneous (*Reid*, p. 137 n.).

It is unnecessary to discuss the question further from the speculative point of view, and these remarks are only intended to prepare the reader for the appreciation of the facts which I am about to mention. For the experiment has been recently tried with interesting results. But before calling attention to this most recent experiment it will be well to quote some of the older cases. I have given a fuller account of these in *Sight and Touch*, published in 1864.

The first case I shall mention is reported by Mr. (afterwards Sir) Everard Home in the *Philosophical Transactions*, 1807. The subject of the operation was a child seven years of age, and everything had been got ready for the experiment previously to the operation. The eye was allowed ten minutes to recover itself; then a round yellow card was placed about six inches from it. Immediately the child said that it was yellow and round. Before the operation he had been able to distinguish bright colours "with tolerable accuracy, particularly the more bright and vivid ones". When a square blue card about the same size was shown him he called this blue and round. Similarly, a triangular card he called round. Two hours afterwards he again at first called the three cards round, but on being shown a square, and being asked if he could find any corners, he was very desirous of touching it, but this being refused, he examined it for some time and said that he had found a corner. "His eye went along from corner to corner."

In the same paper Home records another case (of a child twelve years of age) in which the blindness was unusually complete, and although the sight acquired was extremely imperfect, the facts are of great interest. This patient before the operation could just distinguish light from darkness, or the light of the sun from that of a fire or of a candle. When he looked at the sun, he said it appeared to touch his eyes, as also did a lighted candle if nearer than twelve inches. At twenty-two inches the candle became invisible. But it is

very remarkable that he had a visual apprehension of form and magnitude, and compared the visual with tactual. The sun appeared to him the size of his hat; the flame of the candle larger than his finger, not so large as his arm. This is important, as all possibility of even the most rudimentary association of the tactual and visual experiences is excluded. He could not see his hat or his arm, neither could he have any tactual experience of the size or form of a candle flame or of the visual image of the sun. This is perhaps a unique instance of a person who could only see objects which from their nature it was impossible to feel.

The most important case on record, however, before that of 1903, was that of Dr. Franz of Bristol, reported in the *Philosophical Transactions* for 1841. The youth on whom the operation was performed was seventeen years of age, and was familiar with geometrical figures, including the simple solids. "His sense of touch had attained an extraordinary degree of perfection," and "in order to examine an object minutely he conveyed it to his lips". Dr. Franz satisfied himself that he could have no perception of objects, although he was capable of perceiving with the left eye colours of an intense and decided tone. He had strong internal strabismus in both eyes, and the right eye had no perception of light at all. When his eyes were first uncovered after the operation he saw "an extensive field of light in which everything appeared dull, confused and in motion," but could not distinguish objects. When his eyes were again uncovered, two days later, he described what he saw as a number of opaque watery spheres, moving about with the movement of the eye, and partially covering each other. One would like to know how he got the idea of "watery spheres". No doubt Dr. Franz is giving his own interpretation rather than the patient's words. As to the appearance intended, perhaps it resembled what may be observed in the case of a normal eye, if we almost close it and look at the window or a lamp. However, this appearance is stated to have diminished daily, and the patient was able to "look through the spheres". As soon as these had disappeared, and he was able to distinguish objects, the experiments were tried. The first was with colours and does not concern our question. In the second he was shown two strong black lines (at a distance of three feet), one horizontal and one vertical. After attentive consideration he "called these by their right denominations". When asked to point out the horizontal line he moved his hand slowly as if feeling and pointed to the vertical, but after a short time he corrected himself. This

simple experiment was sufficient to show that the idea of extension which he now got from sight was not of a wholly different nature from that which he previously had from touch. His initial mistake of the vertical for the horizontal merely proves, if proof were neceesary, that no association had been established between the impression conveyed by the two senses. He was next shown the outline of a square (six inches in diameter) within which was a circle and within this a triangle. A very complex figure! and one is a little surprised to learn that after careful examination he recognised the figures and described them correctly. When asked to point out either figure, he moved his hand, as if feeling, and with caution. Being shown a cube and a sphere, he said he saw a quadrangular and a circular figure, and after some consideration pronounced the one a square and the other a disc. These figures were each four inches in diameter and placed at a distance of three feet. He was next shown a pyramid, which appeared to him triangular, but when it was turned about a little so as to present two of its sides to view, after considering it a long time he said it was an extraordinary figure, neither triangular, quadrangular, nor circular, and at last said: "I give it up". When asked to describe the sensations produced by the different objects, he replied that he had seen a difference between the sphere and cube at once, and that they were not drawings, but had not been able to form from them the idea of a square and disc until he perceived a sensation of what he saw in the points of his fingers, as if he really touched the objects. Similarly persons possessed of normal vision, on feeling a strange object in the dark, will try to form a visual representation of it. This is an instance of a well-known general principle. When the three bodies were put into this patient's hands, he was surprised that he had not recognised them by sight, as he was well acquainted with these solid figures by touch. It is significant that what surprised him was not the dissimilarity of the tactual and the visual perceptions. It may interest the reader to learn that the young gentleman upon whom this operation was performed subsequently entered the medical profession, and had a practice in the neighbourhood of Dublin. His name was Ferdinand C. Jencken. Some thirty years ago Dr. Mahaffy made his acquaintance and had some conversation with him respecting his experience. He told Dr. Mahaffy that if his parents had been aware that Dr. Franz was writing a paper on the case, they could have supplied him with additional particulars of interest. He also mentioned that he had studied the

psychological theory of vision, and entirely disagreed with the theory of John Stuart Mill. He died before there was any further opportunity of questioning him as to his recollection of his experience before and after the operation. This was to be regretted, for a well-educated youth, who had gone through such an experience in his eighteenth year, would be likely to retain a vivid recollection of it.

The regret is mitigated by the fact that a similar case has lately been reported in which the observations were conducted with the utmost care. I refer to the case reported by Dr. A. Maitland Ramsay, of Glasgow, in the *Lancet* of 16th May, 1903. A reprint of this report, with additions, has been issued under the title *A Clinical Study of Three Cases of Blindness in which Sight was Acquired in Adult Life* (Glasgow: Printed at the University Press, by Robert Maclehose & Co., 1903). Dr. Ramsay has favoured me with a personal communication containing some additional interesting details.

The patient in question, whose name was Carruth, was a man aged thirty, blind from birth, both lenses being completely cataractory. He was quite unable to distinguish objects, although he could tell day from night, and could easily perceive a light and locate it accurately, but he seems not to have any perception of bright colours such as the blind sometimes have. He worked in a garden and had learnt to pluck flowers, arrange them in bunches, and pack them in boxes for market, not only without the slightest difficulty, but with very great accuracy. He distinguished different blossoms, partly by touch, but chiefly by smell; and by dint of asking questions he got at last to know so much about their form and colours that he could arrange them in a bouquet.

Dr. Ramsay extracted the lens from the right eye on the 11th of March, 1903, and from the left a week later. For about ten days after the operation the patient appeared quite dazed, and could not realise that he was seeing. From the outset he took a most intelligent interest in his own case, and asked numerous questions of his fellow patients. "The first thing he actually perceived was the face of the house-surgeon. He says that at first he did not know what it was he saw, but that when Dr. Stewart asked him to look down, the sense of hearing guided his eye straight to the point whence the sound came, and then recalling what he knew from having felt his own face he realised that this must be a mouth, and that he must be looking at a face." This seems even more difficult than the discrimination of a sphere and a cube, which was tried very early in the case. "On the

second day, I think it was [writes Dr. Ramsay], that the patient got out of bed. I went into the day-room and showed him a ball and a toy brick, and asked him if he could tell the one from the other. I told him I was showing him a ball and a brick. He looked at them for several minutes, moving his head from side to side, and backwards and forwards so as to see all round about them, and at the same time I noticed his fingers were moving nervously, trying to feel them in imagination. He at length and without any hesitation told me that I was showing him a ball and a brick. I ought to have said" (*i.e.*, in the article in the *Lancet*) "'named them correctly' instead of saying 'described them correctly'. I was struck by the decision he displayed and asked him how it was he knew the ball from the brick, when he said that 'he was so accustomed [to] handling objects that he had come to have a notion in his mind regarding the form of things'. It was suggested," says Dr. Ramsay, "that Carruth had probably seen a chair or a table before I showed him the ball and the brick, and in that way had come to have an idea of a corner. Of course that may be so, as my test was made after he had left his bed and gone into the patients' day-room, but my own feeling is, both from my observation and the time, and from what the patient said about it afterwards, that he answered correctly because he was able to compare what he saw with an imaginary tactile impression. That this was so is, I think, further proved by another observation made by Prof. Latta, who asked Carruth one day if he could describe the pattern on the back of a wooden couch. It was a fenestrated back, and the openings represented a series of Gothic arches. Carruth said he was not sure, but when asked if he had ever felt anything like what he saw on the pattern, he replied, 'I think it resembles a bridge.' 'Is it like a bridge?' Prof. Latta asked him again. 'Well, I think it would be more like what I have felt if the top opening was lower down.' At the time I was much struck by that reply, as it showed me again what I had observed on several occasions, that Carruth was learning to see by a process of reasoning."

This seems to be the first instance in which Molyneux' question was put exactly as he suggested. From the fact that Dr. Franz's patient, without being told what was before him, called the sphere and the cube a disc and a quadrangular figure respectively, it might fairly be inferred that if the question had been proposed to him in the same form as to Carruth he also would have answered correctly. But this would have been only an inference, and it is more satisfactory

to have the direct answer as in the present instance. It will be seen that it harmonises with the observations made in other cases.

There is another and kindred question on which Dr. Ramsay's observations throw fresh light; I mean the question whether the visual apprehension of magnitude and distance is wholly derived from tactual or locomotive associations. I have maintained the contrary in the book already referred to, *Sight and Touch*, and my view is strikingly confirmed by Dr. Ramsay's observations. "From the time he got out of bed after the operation [says Dr. Ramsay] he could guide himself with ease through a doorway, and walk about on the level, but he had considerable difficulty in ascending a stair, because the steps seemed so high that to begin with he raised his foot much farther than was necessary, and without meaning to do so, went up two steps at a time. Whenever he discovered his mistake, he began to pay attention to the rise of each, and he has now no difficulty in estimating their height." Association obviously came in here to connect the effort with the existing visual perception. "This, of course, was part of his difficulty of judging distance, though when he first looked out of a window on to the street, and saw the pavement below, he said he felt that if he had a stick he should be able to touch it, and thus had not the feeling recorded of the boy operated on by Cheselden in 1728, who thought that all objects 'touched his eyes' just as he had formerly got his impressions of things by pressure against them."

Carruth was not singular in the impression made on him by the apparent magnitude of objects. Cheselden's patient also said that objects appeared extremely large. Similarly Grant's patient on first seeing his guide, and being asked what idea he had of him before he saw, said he thought him "a much smaller machine, but of the same kind as himself". Mr. Jencken also "saw everything larger than he had supposed from the idea obtained by his sense of touch". There is, I believe, no observation recorded in the contrary sense. These facts seem to prove that there is a visual apprehension of magnitude independent of association. On the other hand, one or two instances are on record in which the patients agreed with Cheselden's in saying that objects appeared to touch their eyes. Thus Mr. Nunneley states that his patient did so think. Nevertheless "he walked most carefully about with his hands held out before him to prevent things hurting his eyes by touching them". This seems to indicate that

he did not think they already touched his eyes, in the sense which we should attach to the words. If I were walking in the dark, and felt something touching my face I should not proceed to walk forward holding my hands before me. Dr. Trinchinetti also, who operated on two children, brother and sister, at the same time, inferred from his observations that they thought visible objects were in actual contact with the eye, but his inference is not justified by the facts that he records. Thus, the boy, on being asked to take an orange placed about one metre from him, at first brought his hand close to his eye, and closing his fist of course found it empty. But he then tried again a few inches away, and in this way at last succeeded. This, of course, proves that the object did not seem to touch his eye as we understand the words. If we felt a flat object touching our forehead, we should not try to grasp it with our fist held near the face. The girl, on the contrary, when she failed to seize the orange with her hand very near her eye, simply pushed her forefinger in a straight line slowly until she succeeded in touching the object. What these observations show is that the patients had not learned to correlate the visual impression with the locomotive effort, a correlation which, of course, can only be learned by experience. On the other hand, a patient of Mr. Ware, a youth of fourteen, on his first trial after the acquisition of sight, took hold of Mr. Ware's hand when held at different distances, or carried farther from him; and in order to satisfy the observers of the accuracy of his perceptions, he conveyed his hand to Mr. Ware's "in a circular direction," whatever that may mean. Both he himself and his parents affirmed that he had never seen the figure of any object. A patient of Mr. Wardrop's, a lady of forty-six years of age, who before the operation was even more completely blind than Cheselden's patient, having been unsuccessfully operated on (and one eye destroyed) at the age of six months, on seeing a coach pass as she was returning home after the operation, asked, "What is that large thing that passed us?" M. Cunier relates the case of an idiot girl on whom he operated, and whose sense of sight he could never educate, so that she constantly stumbled against objects, and several times fell downstairs. Yet when her passion for sweetmeats was excited, she had no difficulty in estimating distance, but easily seized fruit or bonbons, and saw them at the same distance as other people. This is interesting as showing the important part played by attention. M. Cunier does not state how long she took to acquire this facility. Obviously it must have taken some time.

In Dr. Franz's case all objects appeared to his patient so near that he was sometimes afraid of coming in contact with them. If he wished to form an estimate of their distance from himself or from one another without leaving his place, he examined them from different points of view, turning his head from right to left.

There are other cases in which the patients, in reply to questions, expressly denied that objects appeared to touch their eyes. Indeed, the expression "touching the eye," simple as it seems, requires explanation. Does it mean touching the eyeball, *i.e.*, the cornea? But the cornea is as insensible to the passage of light as an eyeglass, and, moreover, we are unconscious of its place. It cannot be meant that objects seemed to touch the retina of whose situation we are equally unconscious, and the stimulation of which conveys the sensation of light, not of touch. We may conclude, therefore, that clearly this feeling was exceptional, and where such an impression existed it may have been due in part to a more or less painful sensation in the eye. For ordinarily the impression of light on the retina is not accompanied by any consciousness of the part on which the impression is made. This is confirmed by the observation in one of Home's cases, before referred to, in which before the operation a candle held at less than twelve inches distance from the patient appeared to touch his eye, while beyond that distance it did not. We must also make allowance for the fact that touch was the only mode of perception of objects with which the patients had been previously acquainted.

To return to Dr. Ramsay's patient Carruth. It is remarkable that he has not retained his faculty of moving easily about in the dark. "Before the operation he could guide himself fearlessly through a ward without coming in contact with the beds or any other obstacle that might be in the way, but since he has been able to see, he says he has lost all that feeling of confidence, and when his eyes are shut he is afraid to move and is impelled to open them to ascertain where he is going—so much so that he does not know what he would do if he again became blind."

I may add that Dr. Ramsay's pamphlet contains an account of two other cases, one of them the sister of Carruth. She was in many respects the antithesis of her brother, being weak and timid. Whereas he in his boyhood was a leader in every game, and would climb the highest trees, bird-

nesting, as fearlessly as any of his companions, she was frightened to go about alone except in places with which she was perfectly familiar. She was also greatly inferior to her brother in intelligence and memory. After the operation (on both eyes) she expressed no wonder at what she saw, but she has great difficulty in describing her sensations in such a way as to convey any clear conception of them to another. It is certain, however, that she can now perceive a human face, and in her own home she can recognise the furniture and other objects in the house; but it is noticed that, although she is manifestly delighted at her ability to see, she never trusts her sight, and always tries to handle an object before naming it.

Dr. Ramsay's third case (really an earlier one) was that of a woman, not born blind, who had lost her sight through an accident when six months old. Before she left the hospital she could recognise the nurses and doctors and everything about the wards. Later, she told the doctor that when she had returned home it had been a peculiar pleasure to her to examine with her eyes the different things with which she had formerly been in the habit of working (on a dairy farm), and she said that they all appeared very much as she had imagined. This is interesting, as it seems to indicate that the knowledge of spatial relations acquired in the first six months of her life had continued to affect her ideas of objects. In this the case resembles one recorded by Wardrop (*Sight and Touch*, p. 152). It is very curious that with such a promising beginning this woman, two years after, had made no further progress in learning the value of vision, and said that she had been kept very hard at work and had used her sight very little. She found it a great trouble to look at an object.

The writer of the article "Cataract" in the *Encyclopædia Medica*, speaking of operations for congenital cataract later than the first few months of life, says: "Later operations will admit of a certain degree of sight being acquired. But the acquiring of these conditions is a slow laborious process, requiring often much training. It always stops short of perfection, often much short of it." As we have seen there are exceptions, and the case recorded by Dr. Ramsay is one of the most remarkable.

VI.—CRITICAL NOTICES.

Elements of Metaphysics. By A. E. Taylor, Fellow of Merton College, Oxford, John Frothingham Professor of Philosophy in McGill University, Montreal, etc. London: Methuen & Co., 1903. Pp. xvi, 419.

This is a book that ought to be very warmly welcomed by students and teachers of philosophy. It may almost be described as the first serious attempt in this country to provide a systematic text-book in Metaphysics similar to those that have long been available in almost every other important subject of study. That such a book should now have become possible is a welcome indication that the study of Metaphysics is beginning to be placed on a secure scientific foundation. This general commendation of the work is one that may be safely made whether one is or is not in agreement with the leading doctrines that are set forth in it. These doctrines are, in any case, put before us not merely as the views of the author, or as a summary of the theories of a particular school of writers, but rather as a statement of results on which experts might be expected either to agree or at least to be prepared to discuss from a common standpoint. It is certainly a great achievement to have got even as far as this in a subject so difficult as Metaphysics. Of course this must not be taken to mean that the writer is not an adherent of any definite school of thought or has not any pronounced opinions of his own. It only means that he writes in a catholic spirit, not as if his particular opinions were the only ones that any sane person could adopt, but always endeavouring to make clear how other views are related to his own.

The actual standpoint of the author is broadly characterised as idealistic; and, more definitely, it may be said to be substantially that of Mr. Bradley. It is clear, however, that Prof. Taylor, while learning most from Mr. Bradley, has not been unmindful of the teachings of Professors Ward, Royce, Stout, Bosanquet, Dr. McTaggart, and other recent metaphysicians. Among recent Germans, he evidently owes most to Avenarius; but the influence of Lotze, Münsterberg, and others, is also very apparent. If there is any recent school of thought to which he may fairly be said to be a little unsympathetic, it is probably that which connects itself definitely with Kant and his immediate idealistic successors. Per-

haps the author was anxious in this work, as in his *Problem of Conduct*, to differentiate his own position from that of those who have done most in this country to introduce the idealistic point of view to English readers. To the present reviewer, however, it appears that his work suffers to some extent from a failure to appreciate adequately the contributions that have been made to metaphysical speculation by Kant and Hegel and by those who have built most directly on their foundation.

Prof. Taylor's work is divided into four books—I. General Notions; II. Ontology—the General Structure of Reality; III. Cosmology—the Interpretation of Nature; IV. Rational Psychology—the Interpretation of Life. The first of these is introductory; the other three correspond on the whole to what other philosophers have called Logic or Dialectic, Physics or the Philosophy of Nature, and Ethics or the Philosophy of Mind or Spirit. It thus appears that Metaphysics, as conceived by Prof. Taylor, covers the whole field of Speculative Philosophy. This has the result of making the whole work somewhat extensive, and less suitable for use as a general metaphysical text-book than it might otherwise have been. One naturally asks whether it would not be better to regard Metaphysics as being concerned only with the central problems of Ontology. But, at any rate, the inclusion of the other parts adds considerably to the interest of the volume.

In the introductory book Prof. Taylor discusses the general question of the nature of Metaphysics, its relations to the special sciences, and the various subdivisions into which its subject-matter falls. The discussion of these points is on the whole clear and instructive; yet there are one or two defects, or at least one or two statements that can hardly be accepted without some qualification. For instance—to begin with a somewhat insignificant point—it may be doubted whether the relation between Metaphysics and Mysticism is not rather needlessly emphasised in § 8 of chapter i. "The philosopher," says Prof. Taylor, "seeks, in the end, the same goal as the mystic; his peculiarity is that he is so constituted as to reach his goal only by the route of intellectual speculation." When one remembers that Aristotle may almost be claimed as the first systematic writer on Metaphysics, and that David Hume was a keen metaphysician, one cannot but feel that it is a little questionable to identify the end of metaphysical speculation so closely with that of mysticism. Some metaphysicians have a mystical tendency, just as some are imaginative, some religious, some ethical, some mathematical; but it hardly appears that they necessarily display any of these tendencies. It would not be worth while to call attention to such a point as this, were it not that it possibly indicates a certain bias in the writer's mind, which shows itself in other connexions. In the meantime, we might contrast the view that Metaphysics is specially related to mysticism with the saying (I think of Prof. James) that Metaphysics is simply 'an unusually obstinate effort to think clearly' about anything.

The important question of the relation between Logic and Metaphysics seems to be dealt with rather too summarily in § 9 of the same chapter, and the remarks on Epistemology in § 10, though good as far as they go, are a trifle tantalising. Prof. Taylor urges that "the discussion of the implications of knowledge is only one part of the metaphysician's task. The truly real is not only the knowable, it is also that which, if we can obtain it, realises our aspirations and satisfies our emotions. Hence the theory of the real must deal with the ultimate implications of practical conduct and æsthetic feeling as well as those of knowledge. The Good and the Beautiful, no less than the True, are the objects of our study." This is certainly an argument against identifying Epistemology with the whole of Philosophy, or even with the whole of Metaphysics; but has any one proposed such an identification? It is perhaps also a good argument against regarding the theory of knowledge by itself as a sufficient introduction to metaphysical discussions. What is wanted is rather a general theory of experience. But the tantalising thing is that Prof. Taylor seems to use this argument as a means of setting aside any such discussion of first principles, and of justifying the attempt to plunge us at once into the consideration of the ultimate nature of reality. The result is that we soon find ourselves employing conceptions that have never been adequately criticised. Even in the passage that I have just quoted there are expressions that are painfully vague for a metaphysician. What is meant, for instance, by the statement that the truly real must 'satisfy our emotions'? Which emotions? Anger? Fear? What is the meaning of satisfying these? And why must they, or any other emotions, be satisfied by that which is 'truly real'? Surely it would be well in what professes to be an elementary treatise on Metaphysics to begin by trying to make such fundamental points thoroughly clear, even if the attempt to do so should involve the omission of some parts of the Philosophies of Nature and Spirit.

The second chapter of Book I. is, however, epistemological in character, *i.e.*, it is concerned with the general analysis of experience and the meaning of the conceptions that emerge in its growth. It thus gives a clue to the principles and method on which the rest of the work is based. It seems to me that it would have been better to connect the substance of this chapter more closely with the contents of Book II., and to regard them as together containing the essential principles of Metaphysics. Throughout the whole of this part of the book the influence of Mr. Bradley is very pronounced, and the treatment of the subjects included in it will probably be particularly useful for those readers who have found the arrangement and method of *Appearance and Reality* perplexing and confusing. Prof. Taylor reproduces Mr. Bradley's main points in a less dialectical and more positive and constructive form. In particular, he places the important conception of 'Degrees of Reality' in the forefront of his exposition, instead of introducing

it, as Mr. Bradley does, near the end. In this way the essential nature of the position seems to me to be made a good deal clearer. On the other hand, the omission or subordination of the more dialectical parts of the work makes certain deficiencies all the more apparent. The Absolute seems to be, in Hegel's phrase, 'shot out of a pistol'. It is thrown at us, as it were, with far too little of that preparatory discussion of fundamental conceptions which seems to be necessary for its acceptance, whether that discussion is to be called Logic or Dialectic or Theory of Knowledge or the general analysis of experience. The result is that the conception of reality here arrived at remains, in some important respects, vague, and the method of reaching it is largely unconvincing.

Like Mr. Bradley, Prof. Taylor makes much of the law of Contradiction as a means of arriving at the general definition of reality; and it is here chiefly that one feels the want of a more thorough consideration of the relations between Logic and Metaphysics than he has anywhere supplied. The main contention seems to be summed up in the following passage (pp. 21-22): "It is at any rate certain that the logician does not intend his Law of Contradiction to be taken as a psychological proposition as to what I can or cannot succeed in believing. He means it to be understood in a purely logical sense, as a statement about the conditions under which any thought is valid. What he says is not that I cannot at once think that A is B and that it is not B, but that, if I think so, my thinking cannot be *true*. Now, to think truly about things is to think in accord with their real nature, to think of them as they really are, not as they merely appear to an imperfect apprehension to be; hence to say that non-contradiction is a fundamental condition of true thinking is as much as to say that it is a fundamental characteristic of real existence. Just because the Law of Contradiction is a logical law, it cannot be *only* a logical law, but must be a metaphysical law as well. If the sceptic is to retain his sceptical position, he must include Logic along with Metaphysics in the compass of his doubts." But must he? There is surely some misunderstanding of the nature of a purely logical law in this argument. What does the Law of Contradiction really mean? Does it not simply state that, if language is to have any meaning, affirmation and negation must be regarded as mutually exclusive? The person who says 'A is B' is not conveying any intelligible meaning if he does not mean to exclude 'A is not B'. This is no doubt a true and important logical *postulate* (here Mr. Schiller and the pragmatists seem to be right in their contention). But what does it tell us about reality? Only that, if reality is in its essence self-contradictory, we cannot express that essence in the form of an ordinary logical proposition. But this is the view not only of the sceptic, who thinks that we cannot express that essence at all, or at least that we may not be able to express it, but also of the Hegelian metaphysician, who thinks that we can express it in a more complicated way by means of a dialectical process. Neither

view seems to be necessarily illogical, or to involve the necessary rejection of the purely logical Law of Contradiction, which is simply a postulate of intelligible speech. It would indeed be a short cut to omniscience if we could discover the nature of ultimate reality from merely reflecting upon that poor old logical formula. That the world is a self-consistent and intelligible whole is no doubt a postulate of Metaphysics which bears some resemblance to that purely logical postulate; but it is a very long step from the one to the other; and it is by no means self-evident that the sceptic is illogical in refusing to take that step.[1] At any rate, in order to show that he is so, it would be necessary to consider the relation between Logic and Metaphysics much more fully than is here attempted.

The next point on which the author insists is that "the real is experience, and nothing but experience, and experience consists of 'psychical matter of fact'" (p. 23). This again does not seem very clear. Surely anything that we can intelligibly speak about at all is experience or psychical matter of fact, whether the content of that experience be something real, apparent, imaginary, or however we may afterwards go on to characterise it. An imaginary pain is an experience quite as truly as a real pain is; an apparent blunder is an experience as truly as a real blunder; a hypothetical motion is a 'psychical matter of fact' as truly as a real motion. The real pain differs from the imaginary one in being not only a psychical matter of fact, but also something which is experienced *as a pain* by some real person. But this seems to imply that it is *the way in which it is experienced* that makes it real, rather than the mere fact of experience. Similarly, in the case of the real motion, as distinguished from the merely hypothetical, the point of difference would seem to be that the one is contained in that objective system which we call the physical universe, while the other is not. But all this leaves the questions What is a real person? What is the real physical universe? completely unanswered. And surely, so far as we know, neither a real person nor the real physical universe ever is *as such* experienced. Such realities are experienced only as ideal constructions put together in the effort to interpret other more direct experiences that we have; and the validity of such constructions is the chief problem that the metaphysician has to consider. In view of all this, it seems utterly futile to say that experience is the test of reality. Everything that has any intelligible meaning for us at all is experience.[2] The question for the metaphysician is—What does experience involve and

[1] Of course it is only the very extreme sceptic—*e.g.*, Gorgias and perhaps Mr. Balfour—who refuses to take it. The ordinary agnostic, as distinguished from the pure sceptic, does not carry his doubt so far as that.

[2] No doubt we may try to distinguish between direct and indirect experience; but this distinction, as Mr. Taylor admits, is not easy to define; nor is it quite clear that the definition of it would help us much. In any case, it is a distinction *within experience*.

imply? Prof. Taylor's way of stating the case seems to me to obscure this fundamental problem; and this is what I chiefly meant by saying that he hardly sufficiently appreciates the Kantian point of view.

Again, Prof. Taylor, as I have already indicated, makes a very free use of the conception of 'Degrees of Reality,' in the sense in which that conception has been reintroduced into philosophy by Mr. Bradley. Now, what exactly is the significance of this conception? It is comparatively easy to understand the sense in which it was taken by some of the earlier philosophers—*e.g.*, Descartes—the sense in which a substance is held to be more real than its attributes, and that which exists 'formally or eminently' more real than that which has a merely 'objective' existence. What is here implied is that reality is itself a kind of attribute attached to various existences, and such that it may be present in them in varying degrees, just as colour or weight may. It is essentially the same view of reality that underlies the ontological argument, as used in the Cartesian and some earlier schools. God is the most real of beings, and hence must in the fullest sense exist. It is hardly necessary to state that this is not the way in which reality is understood either by Mr. Bradley or by Prof. Taylor. But, if not, the expression 'Degree of Reality' appears to be seriously misleading. Can there be degrees of that which is not a quality? Probably it would be admitted by Prof. Taylor himself that the term cannot here be taken quite in its ordinary sense.[1] But it may be thought that this is merely a verbal criticism. To some extent I admit that it is so. If, instead of saying 'Degree of Reality,' we said 'Degree of adequacy in the expression of Reality,' we should perhaps be conveying the same meaning and evading the objection. But I am afraid that the form of expression actually adopted by Prof. Taylor covers, to some extent, a confusion of thought. This I must try to bring out.

When we abandon the old and literal meaning of 'Degree of Reality,' what seems to be left is simply the doctrine that there are different points of view from which things may be regarded as real, and that some of these are more ultimate than others, and would require less correction when we pass to the point of view of the Absolute. Now, that this is in a sense true, no one is likely to

[1] Prof. Taylor seems to think (p. 108) that the use of the conception of 'degrees of Reality' finds some support in the recognition of different orders of infinity in mathematics. But the cases are not at all parallel. It is true that we may, on the one hand, have an ordinary infinite series, and, on the other hand, an infinite series raised to a power which can only be expressed as an infinite series; and the latter infinite may be said to be of a much higher order than the former. But even an infinite of the first order is as infinite as it can be. It cannot be described as slightly infinite or only just infinite, in the sense in which a colour may be said to be slightly red, or a sound only just audible. It is surely of some importance in metaphysics that we should not misapply our categories.

dispute. From the point of view of the farmer, the sun rises and sets, and it would be the merest pedantry to deny it; though, from the point of view of the astronomer, another way of expressing the same fact would be more correct; and perhaps the metaphysician or philosopher of nature might again express it differently from the astronomer. So also it may well be that some of the most important truths of physics, psychology, ethics, and other scientific studies, may have to be expressed in a qualified form from the point of view of the Absolute. But is this all that is meant by Prof. Taylor? Perhaps it is; but the expression seems to be also used in such a way as to imply that some things are actually true or real from one point of view and false or unreal from another. This can hardly, in strictness, be admitted. All that can be allowed is that the importance of some truths is greater from certain points of view than from others, and that they are naturally stated differently from different standpoints. The fact which the farmer expresses by saying that the sun rises and sets is just as true for the astronomer as for him; but it has less importance for the astronomer, and is naturally expressed in a different way. In like manner, we may, I think, be sure that the truth which the arithmetician expresses by saying that two and two are four, or that which the physicist expresses by saying that material bodies attract one another according to a certain law, or that which the psychologist expresses by saying that an idea which has been once presented in conjunction with another tends, when it is represented, to reinstate the presentation of the other—any one of these truths, if true at all, is true always. But, while they are very important truths in the science that specially deals with them, they may be very subordinate truths from other points of view; and the point of view of some sciences is no doubt more complete and adequate than that of others. What Prof. Taylor seems to imply, however—and what is perhaps still more frequently implied by some others who use this conception—is that something may be true from one point of view (*e.g.*, it may be true for us, here and now, that conscious process takes place in time), and not true at all from some other point of view. And the conception is thus used so as to enable writers to recognise certain forms of experience, which they find it difficult to set aside, as having a kind of reality, and yet at the same time to deny their reality in the full sense of the word. It seems to be thought, for instance, that we may truly regard human life as a process in time, and yet, from another point of view, maintain that it is timeless.[1] I cannot but believe that this is altogether fallacious. All that we are entitled to say is that the time-process which seems to us so important may, from some other

[1] Dr. McTaggart's position, for instance, seems to be an illustration of this. On the one hand, he holds that time is unreal; while yet, on the other hand, he treats it as being so real that human existence must be regarded as going on in it throughout an indefinite past and an indefinite future.

point of view, be comparatively insignificant. But it cannot cease to be real, if it is real at all. And what I here complain of is that such writers as Mr. Bradley and Prof. Taylor seem at times to use the conception of 'Degrees of Reality'—I by no means intend to imply that they *always* do so—as a means of playing fast and loose with reality. Reality, as they conceive it, tends to have a somewhat Parmenidean or Spinozistic character. They tend, in spite of themselves, to represent it as an abstract unity without real process or effective differentiation, while yet they seek, in Mr. Schiller's phrase, to 'preserve appearances' by saying that that which appears in process, that which seems to show an effective differentiation, has a certain 'degree of reality'. To justify such a criticism, however, would carry me far beyond the limits of such a review as this; and I can only set it down here for what it is worth. I hasten to add also that, if there is any force in it, Prof. Taylor seems on the whole to have guarded himself with considerable care against the misuse of the conception. He nearly always uses it in the way that appears to me to be legitimate. But, if we are to guard thoroughly against its misuse, I am convinced that we ought to avoid the expression altogether.

This leads me to notice, more definitely, the general nature of the conception of the Absolute which Prof. Taylor here sets before us. His conception seems to be in the main that of Mr. Bradley; but it appears to be modified, and I think with advantage, by reference to that of Prof. Royce. He describes the Absolute as an infinite individual whole, unfolding its content (if I understand him rightly) through subordinate individuals in which the nature of the whole is, more or less adequately, reproduced. Some such conception as this is no doubt the common property—'nur mit ein bischen andern Worten'—of almost all constructive speculative philosophers. It seems, as Prof. Taylor himself indicates, to be substantially the view of Spinoza; and it does not appear to be, in essence, widely different from that which one gets from Plato, Hegel, or even Leibniz. There are no doubt shades of difference—but very evanescent shades—between these, chiefly with regard to the extent to which the unity of the Absolute is emphasised, as against its differentiation. From this point of view, Mr. Taylor, though obviously aiming at a middle course, appears on the whole as an advocate of unity, contrasting in this way with Dr. McTaggart, for whom the aspect of differentiation may be said to be paramount, and to a less extent with Prof. Royce, with whom the two sides seem to be pretty evenly balanced. But perhaps the differences among constructive metaphysicians lie not so much in the general nature of their conceptions of the Universe as in the methods by which they arrive at these conceptions, the degree of coherence with which they are able to develop their content, and the extent to which they can apply them in the interpretation of our concrete human experience.

As regards the first of these points, I have already tried to bring

out the defects that seem to me to be involved in Mr. Taylor's method. The formal way in which he arrives at his conception of the Absolute tends further, I think, to give to the conception, when formed, a certain emptiness and unreality which make it difficult to give it much significance in the interpretation of experience. Prof. Taylor's work seems to me on the whole to compare unfavourably in this respect with that of Prof. Royce and Dr. McTaggart, who both succeed (the former by the conception of purpose, the latter by that of love) in bringing their idea of the Absolute much more closely into relation with the facts of human experience.

As to the inner coherence of Mr. Taylor's conception, I must confess that I find it difficult to think it out clearly in the form in which he has presented it to us. The conception of individuality is connected by Mr. Taylor with the idea of inner purposiveness (p. 58); but it does not appear to me that he has very fully brought out the implications of this idea. It is one of the points in which he is most closely related to Prof. Royce; and I cannot but think that, if he had more fully developed what is involved in it, he would have been led much more strongly in the direction indicated by Prof. Royce, and have thus been drawn much more definitely away from the position of Mr. Bradley. Again, I cannot be sure that the conceptions of wholeness and infinity are not in contradiction with each other. In interpreting the latter conception, the author follows Prof. Royce in seeking light from some recent mathematical developments. He criticises, indeed—I think with a great deal of force and acuteness—some of Prof. Royce's applications of these ideas; but he accepts his general position. According to this view, the nature of the Infinite lies in the property 'of having an internal structure which is the harmonious and complete expression of a single self-consistent principle'. But if this is all that it means, the use of the term seems unnecessary and misleading. It adds nothing to the conception of a thoroughly individual whole. I gather, however, from the illustrations that are used, that, while Prof. Taylor regards this as the *primary* meaning of the Infinite, he takes it *also* to imply, as in the case of mathematical series, that there is actual endlessness. If not, the mathematical analogies seem somewhat beside the point. And, if it does involve this, I find it difficult to reconcile it with the idea of a real whole. I cannot but think that Prof. Taylor would have found Hegel's conception of the Infinite, which is closely akin to the one that he adopts, more really instructive. It seems to me, moreover, that, if Mr. Taylor had applied his conception of 'purposiveness' more completely, he would have found that the conception that he is here in want of is that of the *perfect*—the good, the end—rather than that of the *infinite*, which, after all, means, and must mean, primarily, the endless.

The most serious difficulty, however, in his view of the Absolute, is that with respect to the relation between this infinite whole and its finite parts. In so far as these parts are real, they cannot be

truly finite, but must, it would seem, repeat the nature of the whole to which they belong. It is difficult, therefore, to see how there comes to be anything finite at all. Apparently this problem is solved by the conception of 'Degrees of Reality'; but, if so, this conception must here be used in that treacherous sense against which I have above protested.

I do not say that these objections are fatal. On the contrary, I am inclined to think that the ultimate nature of reality must be stated very nearly in the way that Prof. Taylor suggests; but it seems to me that he has not fully faced all the difficulties that are involved in such a statement. Still, even if this is true, he must certainly be ranked with those who have done most to give determinateness to the conception of the Absolute. Whether the term 'Absolute' is quite appropriate for it, when it is thus supplied with a determinate content, is perhaps a purely verbal question. Plato and Spinoza and most of the other great philosophers called it 'God'. Of course the objection to this is that it is thus identified, perhaps too hastily, with the ultimate object of religious reverence. But Prof. Taylor, at any rate, is inclined (p. 394) to defend this identification.

It has seemed best to deal somewhat fully with Prof. Taylor's fundamental principles. There are still many points, even in this connexion, on which one would like to touch. I could have wished, for instance, to say something about Mr. Taylor's view of Causation. But a review at least cannot, in any sense of the word, be infinite; and there is now very little space left for reference to what the author has to say on Cosmology and Rational Psychology.

On the former of these, I must content myself with the statement that he seems to me to have done much to remove the reproach that is often brought against idealists of not being sufficiently in sympathy with the work of the physical sciences. It is interesting to note that he regards 'uniformity' as a *postulate;* and his treatment of the conception of Evolution may be specially commended to the attention of scientific readers.

In the book dealing with Rational Psychology the problem of the relation of Soul and Body comes up for discussion; and here he seems to have been a good deal influenced by Prof. Ward. What he has to say about the Self, Moral Freedom, and the implications of Ethics and Religion, is extremely interesting and instructive. On the subject of Immortality, many will be pleased to learn that Mr. Taylor is of opinion that speculative philosophy 'gives us hope' (p. 357)—but not assurance.

In conclusion, I cannot but congratulate Prof. Taylor on having succeeded, so soon after the appearance of his very striking work on *The Problem of Conduct*, in producing a second work which is almost, if not quite, as interesting and important. If it is still not exactly the book that students and teachers of philosophy are longing for, one may be sure at least that whoever writes that book will find Mr. Taylor's of the utmost assistance.

J. S. MACKENZIE.

An Autobiography. By HERBERT SPENCER. London: Williams & Norgate, 1904. 2 vols. Pp. xiii, 556; ix, 542.

IT will hardly be disputed that in writing this *Autobiography* Herbert Spencer has taken upon himself a grave responsibility, and done what may be fraught with serious consequences to the repute of philosophy. For he has attempted the self-analysis of a philosophic soul, and philosophic souls have usually shut themselves up in their shells as tight as the proverbial clam, and this, together with their rarity, and the difficulty of making them intelligible, has conduced greatly to their impressiveness. It would seem therefore that even a successful self-analysis involved certain risks to philosophic *prestige*. But a respect based merely on unfamiliarity is not worth having, and the psychologist at all events will not regret that his "constitutional lack of reticence" led Mr. Spencer to attempt his own analysis. And that the undertaking has been successful is abundantly attested by the attention which his book has excited, and by the imitations to which it has stimulated (even though I cannot vouch for the rumour that an Autobiographical Society has actually been started among philosophers for the mutual compilation of autobiographies). As autobiographies go, Spencer's is a considerable success. It is, of course, too long, autobiographies being usually nearly as immoderate as biographies in this respect. In spite of its length, however, it is interesting, and this is rendered all the more curious by the fact that neither the life nor the mind it describes would ordinarily be called interesting, even by the psychologist. It contains no scandals and, despite the 'constitutional lack of reticence' frequently referred to, few indiscretions. In fact the only important feature of this sort it contains is the virtual confession which has been so widely noticed, that at one time Miss Marian Evans would gladly have become Mrs. Herbert Spencer, if Mr. Herbert Spencer had thought that one of the principals to the affair had enough money and the other enough looks. As it was he advised her to seek consolation by writing fiction (i., 398, 492), to the great gain, probably, of the readers of 'George Eliot'.

The first great duty of an autobiography is doubtless to be interesting, but the first great question it must provoke is that of its veracity—taken of course in the largest sense and including, not only the question of whether its author has wished to convey the true impression about himself, but also that of whether he has succeeded in so doing. Absolute veracity indeed, it may be said at once, no biography, or autobiography, ever attains. The infinite complexity even of comparatively simple minds is too great for any picture to be ever wholly true. But then, even in life, complete self-expression seems equally impossible. Granting, however, that every biography will be incomplete, and will possess a bias, even when the writer has, like Spencer, sincerely tried to do justice, and no more, to his subject, it is still worth discussing what that

bias is. Now the world usually decides this question in an over-simple way. It assumes offhand that if a picture is sufficiently unfavourable to please its cynic taste, it must undoubtedly be true. And yet we have on record abundant confessions (*e.g.*, those of Rousseau, Cellini, and St. Augustine) to prove that men, from various motives and in various ways, will make themselves out greater rascals than they could possibly have been. Indeed, successful self-appreciation is probably by far the rarer fault in autobiographies: it has been given to few to establish their reputation for all time as paragons of virtue by the exquisitely simple device used by the Emperor Marcus, when he gratefully recorded his obligations to the various relatives and teachers from whom he had acquired all the virtues. Spencer's autobiography, therefore, will follow the rule rather than the exception, if the picture it has painted does more to satisfy the malice of the world and the hatred of enemies than the veneration of friends. The latter doubtless will find in it confirmation of the moral qualities which have done more perhaps to make him famous than the intellectual; they can find abundant evidence of his unswerving rectitude and unflinching perseverance, of his sturdy independence and somewhat self-willed sense of duty; they will trace also the current of a thought that always flowed deeply and strongly in its rather narrow channel. But these fundamental claims to respect are combined with a cold complacent egoism; they seem unrelieved by any capacity to unbend the bow which is ever fixedly aimed at the mark, and they are heavily overlaid by all sorts of queer idiosyncrasies and petty pedantries, from an inability to read Homer (i., 262) and Plato (ii., 442) to the 'ear-stoppers' with which to cut short excessive conversation (ii., 452). One finds too constant lamentations about his health and what looks like an appalling absence of any sense of humour. In short the later Spencer of the *Autobiography* (*aetat.* 55-69) may easily be thought to have grown into a very queer and cantankerous sort of 'crank'.

And yet it may well be doubted whether this picture has not done him a good deal less than justice. Before condemning him on his own evidence his critics should face at least the undeniable fact of his friendships. A man who can form and preserve lifelong friendships not only cannot be wholly devoid of amiability, but must be possessed of some social attractiveness. People do not persistently invite to their houses those whom they cannot like, and from whose society they gain nothing. And Spencer not only preserved most of his early friends (except one who cast him off because of the danger to his Christian faith which "might accrue from my association with one so talented as yourself and so well able to make the worst appear the better reason," i., 276), but *remained friends with the children of his friends.* And this ability to overpass the great barrier which separates the generations, together with his love of, and success with, children, however quaintly the avowal is made (ii., 447-8), would seem fairly conclusive evidence of a

more human character than the *Autobiography* as a whole would indicate.

Of other defects which Spencer attributes to himself the most unceasing is the lack of health. According to himself the mischief began in 1855 when his "nervous system finally gave way" and he acquired a sensation in the head "bearable but abnormal" (i., 467). Still more serious symptoms were insomnia, only partially alleviated by the invention of a waterproof head poultice (i., 474), and indigestion, not however always brought on by "dietetic imprudences if the social surroundings are such as to yield great pleasure" (ii., 26; cp. ii., 296). His hours of sleep, he tells us, usually amounted to four or five, though sometimes (i., 474) they seem to have been prolonged to seven. As against these complaints, however, we have to set the facts that insomnia and dyspepsia are two of the favourite maladies of hypochondriacs, and also sundry confessions. Thus (ii., 461-2) he admits that throughout life he has not been subject to much positive pain, and that he never looked the invalid he claimed to be, and was usually taken to be ten years younger than he was. And after all, eighty-three is a good age even for a healthy man to attain.

A total lack of humour is another defect which is frequently alleged against him. Now in a philosopher humour is a dangerous quality which gives rise to much misunderstanding, as Plato, Fechner and Voltaire could testify. And there is no special reason why a sense of humour should be commoner or better developed among philosophers than among other men. Nor does this appear to be the case. And moreover it is by no means clear that the fault is not rather with Spencer's critics who have failed to detect an exquisitely subtle sense of humour which might taste insipid to their coarser palates. They should consider at least a number of passages which can hardly have been set down with no consciousness at all of their funniness. Thus Spencer himself records Huxley's *mot* that 'Spencer's idea of a tragedy was a deduction killed by a fact' (i., 403). There is too the story—'Why have you no wrinkles?' 'Because I am never puzzled,' etc. (i., 399); of the ghost "who would have tried the nerves of many people in full health" (i., 480); of the influence of alcohol on surveying (i., 318); of his first oath (i., 486); of the entrapping of Bishop Ellicott (ii., 295); of the "light divinity calf" (ii., 309); of his own "facetiousness" (ii., 215) in re-making, unawares, an old Greek joke (*cf.* also ii., 87, 287, 335 and 359). To those endowed with a sense of humour these and many other passages in the *Autobiography* undoubtedly *are* funny, and so perhaps it hardly affects their enjoyment whether or not they were intended so to be.

But the readers of MIND will doubtless desire to know what light the *Autobiography* throws on the genesis of Spencer's philosophic system, and his relations to other philosophers. On the whole it is, in this respect, singularly meagre. Darwin's opinion of one of his early evolutionist papers is tantalisingly suppressed, as too favour-

able (ii., 27-8). The letter to Mill on Utilitarianism is reprinted (ii., 88). There are curious reviews of his own books such as might have appeared had reviewers known their business and done their duty, and confessions that he could read neither Plato (ii., 442), nor Kant (i., 252, 378), nor Hegel (ii., 240); there is some jealousy of Comte (i., 398), and but a single reference to Mansel (ii., 257)! Spencer evidently cared as little for the history of philosophy as for that of the world, and in one who professed to be the philosopher of evolution this mental trait has all the piquancy of paradox. It would seem, however, that this scarcity of acknowledgments was not so much due to conscious ingratitude as to the fact that Spencer was an unusually self-centred thinker who very thoroughly assimilated what he borrowed, and still more to the fact that when he came to write his account he had very largely *forgotten* the development of his thought and the history of his books. Of this forgetfulness there is copious evidence throughout, and indeed in the absence of contemporary records it would seem to be almost inevitable (*cf.*, *e.g.*, ii., 120, 206, 254, 266, 284). Now the correspondence Spencer used for writing his life was nowhere philosophic, and so it fails to supplement the lapses of his memory and throws very little light upon the formation of his views.

In spite of this *lacuna*, however, one or two philosophic characteristics of interest seem to come out. In the first place Spencer seems never to have felt miserable, or to have faced the problem of evil in his proper person. The result is a certain hardness and dryness in his mental atmosphere which spoils the æsthetic value of his work. Of his philosophy, as of so many, it will have to be said that it can have no lasting message for mankind, because it has no ear for the outcry of human anguish. Secondly, Spencer's philosophy certainly did *not* begin in wonder. It began in cocksureness and concludes in perplexity. In other words Spencer never contemplated the problem of existence as a whole. He started on the scientific plane from a number of small problems, suggested by his interest in physics and politics, and advanced thence to higher 'generalisations'. When in this way he had reached a single formula of 'evolution' which he could apply to all 'phenomena,' his intellectual craving was satisfied, and he could contentedly relegate to the 'Unknowable' whatever further problems had eluded the meshes of his method. Now it is clear that such a procedure has great advantages. It means that even if we cannot solve everything, we need not therefore abstain from attacking the problems we have a chance of solving. And in point of fact that is how advances in knowledge have usually been effected. But it is very likely to leave us at the end with a final surd, with a discord that sounds the louder the further we have carried our scientific generalisation and the nearer consequently we have got to the regions across its borders. And though at first we may feel able to treat the 'Unknowable' as a waste-paper basket into which we may gladly fling the rubbish we would be rid of, we are progressively forced to

realise that it is really an abyss that ever threatens to engulf the cosmic order we have won from chaos.

In the concluding *Reflections* (ii., 417-71), which are well worth reading, accordingly, this consciousness of the failure of the Synthetic Philosophy finds expression in the grave eloquence to which Spencer's style sometimes, though rarely, rises. As he contemplates the "all-embracing mystery" there "rises the paralysing thought—what if of all that is thus incomprehensible to us there exists no comprehension anywhere? No wonder that men take refuge in authoritative dogma! . . . Thus religious creeds, which in one way or other occupy the sphere that rational interpretation seeks to occupy and fails, and fails the more the more it seeks, I have come to regard with a sympathy based on community of need: feeling that dissent from them results from inability to accept the solutions offered, joined with the wish that solutions could be found."

This may not be profound philosophy as philosophy has often been interpreted, and contrasts markedly with the cryptic claims and *staccato* movements of an omniscient 'dialectic'; but it is, perhaps, something truer and better. It is at all events not undignified, nor unworthy to stand as the last words of the last great philosopher of the old British School.

F. C. S. SCHILLER.

Fundamentals of Child Study. By EDWIN A. KIRKPATRICK, B.S., M.Ph. The Macmillan Company, 1903.

CHILD Study has in recent years occupied a prominent place in Educational Literature and at School Conferences. Societies have been founded to promote an interest in the subject and to disseminate the results of manifold and varied observations and investigations. Scientists with trained eye have watched and recorded the facts in the early life-history of their own children. Monographs dealing with individual children or groups of children, and with different aspects of their development are becoming common. The pathological side has been fully dealt with by Clouston in his *Neuroses of Development.* Infants and school children are being weighed, measured and observed by countless parents and teachers all over the world. The sayings and doings, the likes and dislikes, the interests and games, the drawings and handiwork of children of all ages are daily being noted, and a great body of literature is growing up containing a considerable store of more or less reliable data. Some American colleges have regular courses in Child Study which are a necessary part of the preparation of their teachers.

All this is the late fruitage of the seed planted long ago by Plato and Aristotle. Plato saw that "the ultimate subject of all education is a living organism" Education was to him the nurture

of this living organism with the food suitable to each stage of its growth. Aristotle held that Education must follow the order of development. It must train the whole nature by training each part in the order of its emergence, and each part with a view to the development of the next higher. These views surely implied study of the living organism at each stage of its growth. Yet except in a rough-and-ready way no real attempt was made to base Education upon a careful study of the nature of the child until Rousseau by the bold paradoxes of his *Emile* once more drove home the truth that Education should be the guidance of growth. The truth was still comparatively barren until the modern advances in physiology and psychology, and the concurrent rise of the doctrine of Evolution shed a new light on the whole matter.

Education requires a knowledge not merely of the instruments of instruction, but of the living growing organism which, though it has a physical and a psychical aspect, is essentially a unity showing solidarity throughout.

What then *are* the Fundamentals of Child Study? Dr. Clouston in his presidential address to the Child-Study Association (1903) showed how wide these fundamentals were. "How," he asked, "can the study be undertaken except by one who is a physiologist, by one who is also a psychologist, by one who is also a pathologist, by one who is also a practical Educationist?" The question is not meant to hint that real child study is impossible, but to make it clear that fitness for the task can only be acquired by a thorough and adequate training.

The book before us does not pretend to enter fully into all the sciences here suggested, but it is written by a man who, with a long practical experience among children, has had the skill to gather from these sciences their various contributions, to see the bearings of these contributions on the main subject, and to bring all this together within the limits of this volume.

The problem of the new Science of Child Study is "to study the outer and inner factors in human development, and to determine how the inner factors are modified by the outer. It must discover the natural order of physical and mental development and the modifying effects of various conditions and activities at different stages. It must find what characteristics are, or tend to be, the most prominent at each age by determining the time of emergence and greatest prominence of each of the numerous instincts" (p. 10). Hence Mr. Kirkpatrick devotes most of his book to a discussion of Instincts and other factors in human development, and to practical applications. He is not hampered by any doubt about the exact definition or limitation of the word Instinct. He does not follow Prof. Loeb in attempting to analyse instincts physiologically, to discuss at length their relation with the central nervous system, or their connexion with the chemical properties of protoplasm. Yet he is familiar with this analysis, and seems to approve of Loeb's point of view, for he states on page 34 that "it is probable that all

instincts are merely a combination of reflexes in which the reaction of one part excites others, with the result that the animal acts as a whole and for the good of the whole". He is satisfied to claim for man a great number of instincts, and to set forth their characteristics and the order of their emergence, relating them to the whole growth of the individual. He takes care to make clear the distinction between fixed instincts which are prominent in lower animals, and indefinite instincts which are most prominent in the higher animals. It might otherwise seem inconsistent to say that man has more instincts that any other animal, and at the same time that man is born with the greatest capacity for being modified to suit his environment. The apparent contradiction is smoothed over by the statement that his instincts are all subject to greater modification by experience than those of any other animal. There is greater plasticity and therefore greater docility. Education, which includes the influence of environment, counts for much. The stern physiological doctrine that heredity is everything and education little or nothing is losing any hold which it ever had. Social heredity is taking the place of physical heredity. Life thus gets back some of its hopefulness. The accident of birth need not utterly blast a life. "Even an instinct may never become an actuality." "What a child is at any time depends upon what he was at the beginning and what he has acquired by his reactions." This book will have an enlightening influence upon and a practical value to those who have the education of children entrusted to their care. It will deepen the sense of their responsibility and open their eyes to the bearing of words, actions, emotions and physical signs upon the problem of the guidance of the children's growth.

The author's discussion of the various instincts is orderly, full and interesting. They are classified according to the uses which they subserve—Individualistic instincts connected with self-preservation; Parental and Social instincts, the highest form of which is Altruism; Adaptive instincts, including imitation, play and curiosity; Regulative instincts, which are subdivided into Moral and Religious. Besides these there are other resultant instincts and emotions to which two chapters are devoted. Of these the most important is the Expressive Instinct, which is made to include Oral Language, Visual Language and Drawing.

After dealing in this exhaustive manner with Instincts, Mr. Kirkpatrick in the closing chapters of the book deals clearly and concisely with the Development of Intellect, Individuality, Abnormalities and with the practical applications of Child Study in school. His treatment of these subjects shows that he has kept himself in close touch with recent Psychology and with modern investigations on Physiology and Hygiene.

The value of the book is greatly increased by the exercises for students, and the suggestions for reading which are appended to each chapter.

JOHN EDGAR.

VII.—NEW BOOKS.

Transitional Eras in Thought: With Special Reference to the Present Age. By A. C. Armstrong, Ph.D. New York: Macmillan, 1904. Pp. ix, 347.

This work endeavours to exhibit the broad uniformities of development which characterise eras of transition such as the present, to weigh the significance of the facts recorded, and to criticise the views advanced as solutions of pressing problems or as new principles on which to base thought. An historical review of transitional eras occupies the first and second chapters, and the succeeding ones deal with "Science and Doubt," "The Historical Spirit and the Theory of Evolution," "The Relation of Thought to Social Movements," "The Appeal to Faith," and "The Close of Transitional Eras".

Prof. Armstrong has incorporated essays and addresses composed by him at considerable intervals of time, with a distinct loss of unity of effect. One does not pass easily from what was suitable to the *Methodist Review* to what might be addressed to the American Psychological Association. On the whole, I think we may take it that the book is intended to have a rather popular appeal; but, even so, its worst fault remains an unfortunate insistence on the obvious, not to say the banal. This is once or twice delivered as a sort of revelation emanating from high authority: "As Zeller, the veteran historian of Greek philosophy, remarks in his discussion of the death of Socrates, the good old times can never be brought back just as they were before" (p. 301). Or again, "As one of the most eminent of Church historians in America," we are informed, in a footnote, that this was the late Prof. Philip Schaff, "once remarked concerning civilisation at large, it undergoes no revolutions for which the way has not been first prepared" (p. 306). This sort of thing certainly ought not to be written, any more than such objectionable forms as "principiant" (p. 246) and "guidant" (p. 331), or such bewildering statements as the following, ". . . evidence that thought is more than a mere sport of reason, as it is sometimes asserted to be, more than a malady of mind in an undeveloped state" (p. 32). Here you naturally ask, Who made such assertions, and what did he mean? Generally speaking, Prof. Armstrong writes plainly and sensibly, and he is well-informed and eminently fair-minded. It is abundantly evident, indeed, that, among the recurrent phenomena of transitional eras, his interest and sympathy are most aroused by the appeal to faith, and I consider his chapter on that subject the best he has written; but, while he regards its testimony as of great moment, knowledge, in the complete sense of the word, it can never be, and he insists that the conflict between the systems of the past and the knowledge of the present demands the untiring effort to think things through to an end. This calls for a process of "synthetic development" (p. 306), a "living articulation of the one with the other, following an

analysis of the given data, which should draw out the inner meaning of the ideas and principles involved to build them up into higher unities". One would have liked Prof. Armstrong to illustrate from the process by which this has been effected in the past. His typical forms of constructive movement: expansion of formulas, which may be mere verbal evasion, "central adjustment," where a doctrine is accepted in its general outline and its details left to be filled in, and displacement or substitution, which does not appear to me to be organic correlation, seem imperfectly adapted to realise his ideal. Prof. Armstrong's discussion of the effects of scientific reflexion and the connexion of intellectual and social development are not exactly profound. He is glad that the negative reflexion of our age is at least certain of science; and he is thankful to science for establishing (by means of Psychology) the integral position of religion in life, and for postulating, and even qualifying, a unitary ground of the world. The primary significance of recent ethical development is the socialisation of ethics, and one of our gravest difficulties to keep within bounds the forces which favour integration to the extent of threatening the independence and worth of the individual. Prof. Armstrong notes in passing what deserves to be noted, that the study of the social consciousness is exposed to the fundamental misconception of looking upon it as forming in some degree a consciousness or mind above and added to the various minds with the recognition of which the investigation begins (p. 211). As regards the Appeal to Faith: The issue is not between reason and unreason, but between a barren intellectualism and a due recognition of spiritual faith, which includes causes, reasons, motives of many and various kinds resulting in personal conviction. It is the whole man that thinks and decides, not any phase of mind in isolation from the rest. If we are to be roused from doubt to the work of a new constructive age "then . . . thought must become conviction, reason find an ally in will, belief pass over into joyous faith" (p. 336).

DAVID MORRISON.

The Fourth Dimension. By C. HOWARD HINTON, M.A., Author of *Scientific Romances, A New Era of Thought*, etc., etc., London: Swan Sonnenschein & Co., Ltd. Pp. vi, 247.

This book is popular in scope and intention, being addressed to such as have but little acquaintance with either mathematics or philosophy. It aims at arousing in such readers some comprehension of what is meant by the hypothesis of a fourth dimension, and some realisation of the intellectual importance attaching to this hypothesis. In both respects it is calculated to achieve a considerable measure of success, although the elaborate models, by which Mr. Hinton endeavours to make the fourth dimension vivid, appear to me, ingenious as they are, to require as much thought for their use as would suffice for the understanding of the fourth dimension without their aid.

Mr. Hinton is less interested in non-Euclidean spaces of three dimensions than in the fourth dimension, indeed he appears (pp. 203-204) to share the vulgar belief that the former imply the latter. The book is written with a most pleasing enthusiasm. "Our three-dimensional world is superficial," he exclaims (p. 84), blending the common and the mathematical meaning of this adjective. He thinks it possible to find empirical evidence, notably in electricity, that small motions of the ether are actually four-dimensional. Now, without denying that phenomena could be conceived which would make such a hypothesis mathematically the simplest available, I do not think that any of the phenomena he

adduces are at all adequate to this end. If Cheshire cats were common, if there were many well-attested cases of the appearance of ghosts in closed rooms, if Messrs. Maskelyne & Cooke could cause the disappearance of a left-hand glove, and its reappearance immediately afterwards as a right-hand glove, the fourth dimension would begin to present scientific attractions which as yet are lacking to it.

Mr. Hinton's enthusiasm leads him somewhat astray, at least according to current opinion, in his estimates of previous philosophies. The Platonic doctrine of ideas is treated as a desperate attempt to solve difficulties which vanish in the fourth dimension. In a chapter devoted to Kant he says (p. 119): "Owing to an expression in the *Critique* the authority of Kant is sometimes adduced against the assumption of more than three dimensions to space. It seems to me, however, that the whole tendency of his theory lies in the opposite direction." It is hardly "an expression," but the whole body of the Kantian doctrine, one would have thought, that is opposed to the fourth dimension. Mr. Hinton remarks (p. 120): "Our logic is simply spatiality in the general sense"; and in the importance which he thus assigns to space he agrees with Kant. But if such purely intellectual constructions as the fourth dimension are to be permissible, it is surely necessary to emancipate our logic from the degrading dependence on perceptible space to which Kant condemned it; and if not dependent on *perceptible* space, it can hardly be supposed dependent on space at all.

The merit of speculations on the fourth dimension—a merit which the present work possesses in full measure—is chiefly that they stimulate the imagination, and free the intellect from the shackles of the actual. A complete intellectual liberty would only be attained by a mind which could think as easily of the non-existent as of the existent. Towards this unattainable goal, non-Euclidean geometry carries us a stage; and some degree of emancipation from the real world is likely to be secured by the readers to whom this book is addressed.

B. Russell.

The Origins of Christianity, with an Outline of Van Manen's Analysis of the Pauline Literature. By Thomas Whittaker. London: Watts & Co., 1904. Pp. 216.

Mr. Whittaker hopes that his pages may be of service towards the traditional task of English philosophy—that of "clearing the ground a little"—for the scientific cultivators of the field. Before dealing with Van Manen's analysis he offers an Introduction which treats of such interesting points as Alexandrian Judaism and The Anti-Hellenic Reaction; but the Introduction is short, and often where argument is needed mere assertion is made. There is the statement, for example, that "there is nothing that can be called historical evidence for the existence of a personal Christ whose name was adored by a group of believers as early as the reign of Nero"; and this, offered as a suggestion by Mr. Whittaker, "The Paul who was remembered was not indeed an associate of the disciples of an actual Jesus". When assertions are made about the "quasi-historical life and death of Jesus" we naturally demand to know how much is "quasi," and how much "historical". Another example will illustrate Mr. Whittaker's power of assertion. He says: "Then (*i.e.*, the end of the first century) began the production of the New Testament literature—without exception pseudepigraphic—which was approximately completed by the middle of the second century". It is almost a case of "Mr. Whittaker *contra mundum*"; but his isolation does not

justify his words, and assertion, where scholars have been at work, is not an effective method for "clearing the ground".

J. H.

Proceedings of the Aristotelian Society. New Series, vol. iv. London: Williams & Norgate. Pp. 170.

Mr. Shadworth Hodgson contributes two papers to this number. The first, entitled "Method in Philosophy," contains a brief and clear statement of his general philosophical position. The second, entitled "Reality," deals mainly with the knowledge of external objects. Both are valuable supplements to the treatment of the same topics in the "Metaphysic of Experience". Mr. Blunt expounds with lucidity and accuracy "Bacon's Method of Science". Miss E. C. Jones ably defends Sidgwick's ethical views against the recent criticisms of Prof. Seth and Mr. Moore. In an excellent paper on "Faith and the Will to Believe," Mr. Hobhouse connects his own positive treatment of the questions at issue with a polemic against certain views which he presumably identifies with the doctrines of James and Schiller. Mr. Westermarck gives an acute and instructive analysis of the "Subjects of Moral Judgment". Mr. Moore's criticism of "Kant's Idealism" is acute and original. Finally, the President deals with "Primary and Secondary Qualities".

Selections from the Literature of Theism. Edited, with Introductory and Explanatory Notes, by A. Caldecott and H. R. Mackintosh. Edinburgh: T. & T. Clark, 1904. Pp. 472.

The editors, in order to show some of the leading positions in the philosophy of religion, have made selections from writings in the succession from Anselm and Aquinas down to Janet and Ritschl. They confine themselves, in these selections, which are translated when not English in their origin, to those which bear on the Existence and Nature of God. The editors themselves note with "some searching of heart" the absence of anything to represent either Leibnitz or Hegel; but, while confessing to inability to make any suitable selection from Hegel, they think that both Leibnitz and Hegel can be studied to greater profit after the discipline offered in the passages gathered together in this volume. Objection might be taken to the exclusion of Hegel when Kant is chosen, and to the inclusion of Mansel and Martineau as the only modern English writers; but, on the other hand, the admission must be made that leading positions are fairly set forth, and that the book is admirably fitted to be an introduction to Theism.

J. H.

A Treatise on Cosmology. By Herbert Nichols. Cambridge, Massachusetts, 1904. Vol. i., Introduction, pp. 455.

"This treatise will attempt to give an account of the fundamental nature of the universe, including man and society. . . . The primary conceptions of physical and mental science will be given chief consideration. And this will be done with the main purpose of demonstrating that they may now be reduced to a single system of formulated knowledge most serviceable, in common, for all the sciences and for ethics, sociology and religion" (p. 1). To the "confusing and harmful antagonisms, constituting the classic strife between philosophy and science, idealism and

realism, spirit and matter, since the beginning of history, . . . this treatise will bring peace" (p. 2). The present introductory volume is intended to pave the way for this achievement by a radical analysis, criticism and reconstruction of the fundamental conceptions of Psychology and Physics. Critical notice will follow.

Pensées de Blaise Pascal. Nouvelle édition. Collationnée sur le manuscrit autographe et publiée avec une introduction et des notes par LÉON BRUNSCHVIGG, Professeur de Philosophie au Lycée. Paris: Librairie Hachette et Cie, 1904. Three volumes, pp. cccix, 104; 441; 423.

In the arrangement of the fragments, M. Brunschvigg departs from previous editions and adopts the order which seems to present the subject-matter in the most natural and intelligible way. But he makes no pretence to reproduce Pascal's own plan of treatment; such an undertaking he regards as impossible. Every help which the reader of the *Pensées* could desire is admirably supplied by M. Brunschvigg, including a history of previous editions, an account of the authors who mainly influenced Pascal, a general discussion of his philosophical position, and copious notes.

Spinoza: sein Leben und seine Lehre. Von J. FREUDENTHAL, Professor der Philosophie a. d. Universität Breslau. Erster Band: Das Leben Spinozas. Stuttgart: E. Hauff, 1904. 8vo. Pp. xiv, 349.

Thanks to the exhaustive research undertaken of late years, chiefly by Mr. Meinsma and by Prof. Freudenthal himself, the material for Spinoza's biography is now as complete as it is ever likely to be. Prof. Freudenthal enjoys, as he has well earned, in this respect, an advantage denied to his predecessors; and it would be hard to better the use he has made of his opportunity. Not only the facts have been collected with the utmost care from all available sources, but the author's judgment is so sound and free from prejudice as to leave very little room for serious criticism. It is no common faculty to be able to take a good view of the wood besides counting all the trees, and the happy combination deserves a special welcome when it occurs. A certain number of minor points, in this as in all historical inquiries, are such as cannot be fully determined, for want of evidence adequate to produce conviction. Our witnesses are often conflicting, open to suspicion, or mere retailers of anecdote. The greatest trouble is with stories neither very well attested nor very probable, but possible and not incompatible with any known fact. Prof. Freudenthal, for example, inclines to treat the alleged attempt on Spinoza's life as fabulous. He is clearly right in rejecting any supposition of a deliberate plot, much more the ascription of any such plot to the chiefs of the synagogue. But there would be nothing strange in an assault being made on Spinoza, just before or just after his excommunication, by some obscure Hebrew fanatic; the story, if invented, must have been invented by his friends and not by his enemies, and moreover seems to lack motive; and Spinoza's friends were not of an inventive turn, so far as we know. Neither is there anything strange in such an incident being current with variations of time and place. On the whole I incline, though not with much confidence, to think that something of the kind did happen. Spinoza would probably not have cared whether it was correctly related, or related at all. But it is really

a matter of taste more than anything else how much one shall believe of anecdotes uncontrolled by documents. In one or two cases I am more sceptical than Prof. Freudenthal; it seems to me that, when it is the fashion to speak ill of a man, hostile gossip should be mistrusted even though it is not manifestly false, and has been started or repeated by persons of generally good repute. However, the subject is hardly a fitting one to be pursued in MIND, as none of these doubtful incidents has the least importance for the doctrine.[1]

Spinoza's philosophy is to be dealt with in a succeeding volume, which we await with much interest. Accordingly matters of a strictly philosophical kind do not occur in this one except incidentally. Prof. Freudenthal has exploded one or two legends which have some bearing, though not much, on the development of Spinoza's thought. We must dismiss the common ornamental statement (repeated by myself among other writers) that Spinoza learnt his handicraft in obedience to the Talmud. The precept in question had long ceased to be regarded as binding (if it ever was) even in the most orthodox Jewish circles; and it is by no means clear that Spinoza was an optician before he left the synagogue. Then the adoption of the Latinised name Benedictus is nothing but the literary common form of the time. Spinoza might have done the same, for most secular purposes, if he had remained in the fold and become a Rabbi. However, he was certainly determined to make a complete breach with Judaism, and he was doubtless well pleased not to be called Baruch. There is abundant evidence in the *Tractatus Theologico-politicus* and elsewhere, as Prof. Freudenthal points out, that the circumstances of his expulsion left a permanent bitterness and in some ways biased Spinoza's judgment. The hypothesis that he was dominated by Jewish authority, religious or philosophical, at any later time is quite unarguable.

The hopeless attempt to reconcile Spinoza's philosophy with any received form of Christian theology seems to be not yet extinct. Prof. Freudenthal thinks it worth while to point out the futility of extracting an imaginary eirenicon from the temporising language of the *Tractatus Theologico-politicus*, especially when we know that the leading ideas of the *Ethics* were already well settled long before 1670. He might have added, if he had chosen (though it was not at all necessary), that the nearest approaches among Christian writers to Spinoza's metaphysical point of view must be sought not in any Reformed Church but in the Catholic mystics of the fourteenth century. It is about as certain as a negative can be that, even if he could read mediæval German, which is doubtful, Spinoza had never heard of Eckart or Tauler, or the not less remarkable anonymous author of *Theologia Deutsch*, who offers quite surprising resemblances to the fifth part of Spinoza's *Ethics*. I rather think those resemblances go deeper in my opinion than in Prof. Freudenthal's; but we must await his interpretation of Spinoza's intellectual love of God in the coming volume. As to the position assumed by Spinoza in the *Tractatus Theologico-politicus*, I see no room for reasonable doubt that it was artificial and provisional. Just how much importance he attached to it is a psychological rather than a philosophical question. The most we are entitled to say is that he thought it useful and was prepared to work with any one who could come so far to meet him. The *Tractatus*

[1] It may be worth while to note here that Spinoza's alleged biographer 'Lucas' is identified as a real person (p. 260 of this volume). One Jean Maximilien Lucas was certainly arrested in Holland, on the request of the French Ambassador, as the author of a scurrilous satire on Louis XIV.

Theologico-politicus is on the face of it, as Prof. Freudenthal says, a *Tendenzschrift*.

Our author gives us a valuable positive contribution in his remarks on Spinoza's acquaintance with scholastic doctrine. He points out that scholasticism was very far from being extinct in the Netherlands. It was still defending itself against the Cartesians, and a student with Spinoza's education was quite likely to have a fair knowledge of it without any special circumstances. Nothing to the contrary can be inferred from the Schoolmen making default in Spinoza's library, for we miss there many other books which he had undoubtedly read and considered.

Finally, we are grateful to Prof. Freudenthal for giving us an honest picture of Spinoza as a man subject to human passions, though less than most men, and not as a monster of perfection.

FREDERICK POLLOCK.

Der Sinn des Daseins: Streifzuge eines Optimisten durch die Philosophie der Gegenwart. Von Dr. LUDWIG STEIN, Professor der Philosophie an der Universität Bern. Tübingen und Leipzig: J. C. B. Mohr, 1904. Pp. 437.

The volume which bears this high-sounding title is a collection of twenty essays which admit of a fourfold grouping under the subordinate designations: "Der Sinn der Welt," "Der Sinn des Erkennens," "Der Sinn des Persönlichen Lebens," and "Der Sinn des Sozialen Lebens". To the last division more than one half of the bulk of the volume is assigned.

The tone throughout is, as the title would lead us to suspect, that of the most confident optimism. Starting with the usual idealist jubilation over the death of materialism, the author goes on to demolish all pessimisms, whether of Schopenhauer, von Hartmann or Nietzsche. His own work gives ample evidence of the doctrine so often quoted, that every metaphysical system is but the impress of the personality of its creator. And yet we cannot call that which is here set forth a system. It is simply an able reiteration of all the arguments which cheerful and sanguine temperaments bring against the "depressing" and "unhealthy" jeremiads of the world-weary. It can hardly be called a fresh contribution to the solution of the problem of existence. Do the pessimists say that "all is illusion"? We reply that "illusion is everything". Life cannot proceed without illusion; our very ideals are illusions. But everything is very good; in fact, we give pessimism the lie direct and there is an end of it. If the reader can accustom himself to this exuberant and intrepid tone he will find much to interest him. Is not one of the essays a *philosophisches Plauderei*, in which three up-to-date Germans discuss, over their coffee and cognac—among other things—the woman of the future? But, more seriously, if one reads those essays as studies in the history of philosophy, one will find many interesting suggestions and novel points of view. Dr. Stein, who, of course, knows all the facts about every one, is able to balance Plato and Aristotle, Herbert Spencer and Comte, in all sorts of strange attitudes over against one another, or to compress all the characteristics of a whole age of thought into a single concept. The ideal life of the ancient world he makes out to be no better than a deified form of that ease and somnolence so dear to the savage and the natural man in general. But our ideal is the life of work, and we possess sufficient reward for this exertion in the mastery which we gain over everything on this planet. Our own pragmatists will then be pleased to note that, according to the most recent deliverance of German optimism, the practical life is the supreme end. But somehow one feels that those

not possessed of Dr. Stein's high spirits may not find his philosophy quite convincing, and may imagine that the latest development of thought among his kindred contrasts unfavourably, as regards metaphysical acumen, with the work of Mr. McTaggart and Mr. Bradley.

G. R. T. Ross.

Die Willensfreiheit; eine Kritisch-Systematische Untersuchung. Von Oskar Pfister, Dr. Phil., Pfarrer in Zürich. Berlin: Georg Reimer, 1903. Pp. viii, 405.

This treatise is an expansion of the essay which gained for its author the prize (divided with Dr. Adolf Bolliger) in the competition instituted by the Hague Association for the vindication of the Christian religion. Dr. Pfister tells us that the expansion was undertaken by him owing to the criticisms passed upon his essay by some of the judges. Certainly the result is an extremely learned and well-informed book. Not only is there a very intimate knowledge of the work of Wundt and of all the recent German psychologists displayed, but the statistical results of the Italian and French criminologists are also laid under contribution, and many of the writers quoted are known only to specialists in psychical science.

We doubt, however, whether this impressive display of erudition was altogether necessary, but it certainly shows how the writer has penetrated into the details of every theory bearing on the subject without any approach to bewilderment. For metaphysicians the interest will centre mainly in part iii., in which the main thesis is developed. The author proclaims himself a determinist (and he allows of no distinctions between 'hard' and 'soft' determinism); but he maintains that the freedom of the will is compatible with, nay, implies determinism. Adopting the theory of psychophysical parallelism, he yet gives a spiritual interpretation to the universe. Cause and effect are concepts applicable in the first place and most of all to psychical events; but in the psychical, as in the physical, cause and effect form a closed system; there is no action for which the motive is not adequate. This, however, does not imply that we cannot act out of a regard for principle, and that all our behaviour is predetermined in such a way that action or inaction on our part makes no difference to the final result. On the contrary Dr. Pfister makes war on all forms of religious predestination as well as on that despair of altering the character which follows from the doctrines of Schopenhauer and Lombroso. An application of his principle to the special problems of Christian theology closes the volume.

G. R. T. Ross.

Einführung in die Psychologie. Von Dr. Alex. Pfänder. Leipzig: Verlag von Johann Ambrosius Barth, 1904. Pp. vii, 423.

The word "Einführung" in the title of this excellent little book is to be understood in a strict sense. The intention of the author is not to give a text-book for beginners, but merely an introduction which shall enable the beginner to study a text-book profitably. He seeks merely to convey a clear and distinct view of what Psychology is and what it aims at. For this purpose he selects for treatment certain fundamental conceptions and principles, and expounds these thoroughly and fully. He begins by showing in a very luminous and interesting way the rela-

tion of Psychology to *praktische Menschenkenntnis*, and in so doing brings out clearly what is meant by the term "psychical". He next proceeds to discuss the relation of psychical existence to the material world; under this head the uniqueness of the relation of subject and object in cognition is clearly shown and the connexion of body and mind is admirably treated. Passing to the methods of Psychology, he emphasises the fundamental importance of self-observation, and explains its nature and conditions. The remaining topics discussed are the unity of the psychical individual, the distinction of "object-consciousness," feeling and conation, the general nature of sensation, representation, memory, sense-perception, attention, and association. On the whole, Dr. Pfänder has accomplished his task very successfully. His book promises to be of great use both to student and teacher. The style is lucid throughout, and the explanations are so full as to leave no excuse for a failure to understand. We do not know of any other book which fulfils the same function as this *Einführung*. Dr. Pfänder has done well a piece of work for which there was great need.

Das Problem des Komischen in seiner geschichtlichen Entwicklung. Von Dr. F. Jahn. Potsdam: A. Stein's Verlagsbuchhandlung, 1904. Pp. iv, 125.

A good historical summary of the various doctrines of the nature of the Comic from Plato and Aristotle down to Bergson and Sully.

Scienza e Opinioni. Dr. Bernardino Varisco. Roma, 1901. Pp. 650.

This work falls into three main divisions. The first deals with Natural Philosophy, the second expounds the fundamental principles of Scientific Psychology, and the third contains an interesting discussion of the theory of knowledge. According to Prof. Varisco the most important question, both for theory and practice, is the question of the supernatural. The philosopher in his speculations, the man of science in his researches, the ordinary man in the common circumstances of life, are obliged, nearly at every moment and more or less consciously, to make their choice between the acceptance and the rejection of the supernatural. To solve the problem it is necessary to begin with a fundamental distinction between that which *is true* and that which *is manifest* (*isŏ che consta*), or between what is true to the intellect and what is true to faith; in other words, between that for which we can give a scientific reason and that which we feel to be quite certain but cannot demonstrate. Natural Philosophy treats only of what is manifest, leaving on one side all that which, belonging solely to subjective consciousness, excludes the possibility of rational analysis. Prof. Varisco does not mean that the truths founded on feeling have less value than those founded on reason. They occupy perfectly distinct domains: the first deriving their force from motives of sentiment, the others from theoretical demonstration. And the author comes to the conclusion that, although he is "profoundly convinced that the sentiment of the supernatural has an objective value," at the same time "the existence of the supernatural is not manifest" (p. 8). This erection of feeling into a higher source of certainty seems both arbitrary and dangerous, implying as it does the existence of truths which science cannot penetrate or even discuss. The author is more satisfactory when—after proving that a mechanical interpretation of physiological phenomena is possible—he shows how mind and organism are connected. In his psychology Prof. Varisco rejects naturalism and

empiricism, revives under a new form the monadology of Leibniz, and adduces new facts and arguments in support of a theory which, in his opinion, unites "the intuitive and scientific solidity of materialism with the evident rationality of spiritualism" (see *Introduzione alla Filosofia Naturale*, by the same author, p. 55). This doctrine, although founded on a metaphysical hypothesis, is not contrary to the author's physico-psychical determinism, because according to him "the soul, considered as an ethereal particle, has no consciousness of itself" (p. 338), and its phenomena are determined from without. The *ego* remains a phenomenal result, conditioned by the organism. The importance of the doctrine lies in this, that it tries to explain the "phenomenal irreducibleness" of the psychical to the physical world, while maintaining their "substantial unity" (p. 307). The difference between the two orders of phenomena would be that physical phenomena happen *between* particles, while psychical phenomena are those which happen *in* a particle.

In his epistemology the author shows that every psychical phenomenon is a kind of knowledge implying an external reality, or in other words that our sensations are objective, *i.e.*, determined from without; and concludes that "the external world exists, independently of ourselves, as a mechanical reality in space and time" (p. 555).

Prof. Varisco's theory of morals is a corollary of his physico-psychical determinism. Morality is a result of experience (§ 159); there are no absolute moral laws; a transcendental freedom of the will must be excluded: man is free inasmuch as he is a rational being; and the moral law is an expression of the way in which he necessarily acts as a rational being subject to external conditions (pp. 587-593). Morality is independent of any theory about the supernatural; and there is a contradiction and an essential immorality in the conception of God as the postulate of morals. For, if God is the giver of ethical laws, and right is right because he wills it, goodness loses all intrinsic value (§ 171). It is with ethical knowledge as with every other kind of knowledge: it cannot be based on the supernatural, because the supernatural cannot be manifest to reason; and so the religious sentiment, whatever may be its objective value, cannot be translated into a distinct cognition, cannot be the foundation of morality and knowledge (p. 626).

Prof. Varisco is a mathematician, a man of science, and, what is more, an acute critic and an independent thinker; he sometimes goes too much into detail, and labours points already satisfactorily settled. And when he deals with questions relating to space, time, energy, and the like, his exposition is technical to a degree which sometimes makes it difficult to follow. But the interest of the subject and the ability with which it is treated are such as to merit a respectful hearing for his speculations.

G. Salvadori.

La Dottrina della Conoscenza nei Moderni Precursori di Kant. Dr. E. Troilo. Torino, 1904. Pp. x, 304.

This volume is introduced by a short preface from the pen of Italy's most famous living philosopher, Prof. Roberto Ardigò, who justly praises the author for his first-hand accurate and complete acquaintance with the writings of the great thinkers whom he passes in review. In philosophy, however, the important thing is less what a writer knows than what he adds to our knowledge. Now it seems to me that Dr. Troilo has adopted a point of view which is not the best fitted for the interpretation of modern thought. He regards epistemology as its central interest from the beginning and as that which has ultimately come to

constitute the whole content of philosophy. Kant has done most to solve the problems of epistemology, all the great streams of speculation converge in his *Critique of Pure Reason*, and he marks the culminating point as yet reached by the evolution of thought. Kant himself for one would hardly have been of this opinion. He at any rate looked on epistemology as a means to an end, not as an end in itself. God, freedom, immortality—these were his fundamental interests, and it is by reference to these that the systems which preceded and led up to his can best be understood. Only in Locke does epistemology really take precedence of every other interest, and for that reason the section devoted to Locke is the most satisfactory piece of work in the present volume.

Our author's enthusiasm for Kant is rather surprising, disbelieving thoroughly as he seems to do in *a priori* principles, and holding, as would also seem, that Kant has not refuted Hume. Apparently what appeals to him is the scientific side of the Critical Philosophy, among whose precursors Bacon and Galileo are rather oddly included. Much is made of Kant's boast that he had effected a revolution in philosophy similar to that wrought by Copernicus in astronomy. No more irrelevant illustration could have been chosen than this. Copernicus did not content himself with saying that the apparent motion of the heavenly bodies is illusory: he showed what is the objective truth of these motions, what they are in themselves. Now that is just what Kant, taking reality as a whole, leaves in absolute obscurity. Or again we may say that whereas Copernicus eliminates appearances, Kant makes them the whole content of knowledge. Dr. Troilo would hardly contend that the object of modern science is to substitute appearance for reality. But he finds in its method a confirmation of the Kantian philosophy, according to which objects conform themselves to thought, not thought to its objects. That is to say true conclusions are worked out by the methods of hypothesis and deduction. Strangely enough he seems to have overlooked the rather obvious fact that if our reasoning determined the nature of things there would be no need for verification. Neptune was discovered by a process of *a priori* reasoning. But would Dr. Troilo seriously maintain that Leverrier's calculations actually placed the planet within the area to which Galle's telescope was directed? And if he does not mean that what does he mean?

In truth that subjectivity which, according to Kant, determines the order of nature can only be called ourselves by the merest equivocation, being altogether outside our conscious life. And for that reason it constitutes a fixed reality to which the thoughts of the empirical self—which is the only true self—must conform themselves if knowledge is to be made possible, just as much as in the dogmatic systems of the pre-Kantian philosophy, or in any system of contemporary materialism.

To speak plainly, Dr. Troilo's ideas about epistemology and its history are in a complete fog from which it is desirable that they should be extricated before his promised study of Kant is given to the public.

A. W. Benn.

Received also:—

Antonio Marchesini Parasia, *L'Imaginazione creatrice nella Fifosofia*, Turin, pp. 131.

W. R. Boyce Gibson, M.A., *A Philosophical Introduction to Ethics*, London, Swan Sonnenschein & Co., 1904, pp. viii, 223.

VIII.—PHILOSOPHICAL PERIODICALS.

American Journal of Psychology. Vol. xv., No. 1. **W. P. Montague.** 'A Theory of Time Perception.' [The central fact of time-consciousness is the specious present. Discussion of duration and succession, the rhythmic character of consciousness, memory and familiarity, and the conditions under which temporal perception originates.] **B. R. Andrews.** 'Auditory Tests.'—I. [Mental tests and their relation to psychology and pathology; tests of acuity of hearing (speech tests and tests with mechanical sounds). Outline of a new method for the use of speech tests in confined spaces.] **E. B. Titchener.** 'Some New Apparatus.' [Demonstration instruments.] **I. M. Bentley** and **E. B. Titchener.** 'Ebbinghaus' Explanation of Beats.' [Examination of Ebbinghaus' revised Helmholtz theory in the light of Stumpf's introspective results.] **C. Spearman.** 'The Proof and Measurement of Association between Two Things.' [The principles of scientific correlation: elementary correlation and accidental deviations; correction of systematic deviations. Illustrations from Pearson's work on collateral heredity.] **I. M. Bentley.** 'Professor Cattell's Statistics of American Psychologists.' **Anon.** 'Nocturnal Emissions.' Discussion. **F. C. French.** 'An Examination of Hoeffding's Theory of Religion.' Psychological Literature. Vol. xv., No. 2. **L. D. Arnett.** 'The Soul: a Study of Past and Present Beliefs.'—I. [Ideas of the soul in primitive times, among the Greeks, in theology and modern philosophy.] **C. Spearman.** 'General Intelligence, Objectively Determined and Measured.' [Application of the author's correlational principles and formulæ to the problem of general intelligence. Review of literature; new experiments and results; the universal unity of the intellective function; tabular statements of original data and calculated correlations.] Psychological Literature. Note. **W. B. Pillsbury.** 'Attention Waves and Fatigue.'

Revue de Philosophie. Mars, 1904. Writing of 'L'abstraction scolastique et l'intellectus agens,' **Victor Bernies** argues that, unless they are prepared to go all lengths with Averroes, Aristotelians would do well to give up the *intellectus agens* as an unnecessary entity, having no place in consciousness; a blind impulse neither intelligent nor volitional; and leading, if it leads anywhere, to the subjectivism of Kantian forms; he sets aside the analogy of light and colour, invoked by the schoolmen to explain *intellectus agens*: altogether an article which an Aristotelian should read. **Abbé Gayraud** and **George Fonsegrive** discuss against one another the question whether the obligation of obedience to reason is prior to that of obedience to God. **Charles Huit,** a deep student of the Platonic dialogue *Sophistes*, argues that the *Sophistes* is in avowed variance with the *Parmenides*, and that neither dialogue is by Plato; he rests principally on the reality assigned to Not-being (*Sophistes*, 256 D. E.)

as subversive of the whole Platonic doctrine of Ideas. In an interesting paper on the 'History of Law' **Dr. Boucaud** observes: "Not less than the archaic mental attitude, the revolutionary mental attitude is deficient in the sense of continuity. . . . The one denies tradition, as the other ignores progress. Extremes meet, and both are out of touch with the succession of ages." The centenary of Kant is duly honoured with a paper, describing the personal habits of the philosopher, and drawing attention to his minor works. Avril, 1904. 'La Théorie Physique,' by **P. Duhem,** deals with the method and scope of physical science. Does physical science explain laws or merely classify them? If it attempts to explain them, it must recur to some theory of the constitution of matter, which may be called metaphysical, inasmuch as it is not capable of direct verification by the senses. **Paul Vignon,** 'Sur le Matérialisme Scientifique,' concludes with much biological detail that "pure mechanical doctrines of descent seem condemned to final impotence". 'Revue Critique de Morale,' by **J. Cartier,** is a review of M. Lévy-Bruhl's *La Morale et la Science des Mœurs.* On the now celebrated question whether the business of moral science is to pass judgments of value or judgments of fact, to prescribe rules of behaviour or simply to describe their historical succession, M. Lévy-Bruhl is an ardent supporter of the second alternative. He considers the individual to be borne along and absolutely swayed in all his conduct by what he has inherited from society, and what he finds in the social environment in which he lives; thus we are sure that, happen what may, morality will never fail us; conscience and conduct will for ever come out under various forms in the course of ages. As the individual cannot mould himself in opposition to society, so neither does the moralist call into being the social conscience; he can chronicle its phases; he may also endeavour to improve them. In accordance with these premises M. Lévy-Bruhl very justly concludes that moral philosophy, in the old sense of that term, has no true existence; it does not exist, because the morality which it has for its object, expressing the *justum et tenacem propositi virum,* is a chimera. "It is necessary, if we wish to live, to conform ourselves to the medium in which we live," says M. Lévy-Bruhl. His critic, M. Cartier, allows that there has been too imperious a setting up of a uniform moral standard, as though man were under all conditions and everywhere alike. But he observes that while society largely controls conduct, it does not control motives; different men will do the same thing under different motives. In every individual there is a self-assertive wish to live; this dominant motive is not supplied by society.

Revue de Métaphysique et de Morale. 12e Année, No. 1. January, 1904. **A. Darlu.** 'La morale de Renouvier.' [A brief exposition of Renouvier's *La Science de la Morale.*] **Couturat.** 'Les principes des mathématiques. I. Principes de la logique.' [This is the first of a series of articles in which Couturat states the formal demonstration, by means of symbolic logic, of the thesis expounded by Mr. Russell in *The Principles of Mathematics,* that logic and mathematics are identical, all the propositions of the latter resting on the nine indefinable notions and on the twenty indemonstrable principles of the new logic. This formal demonstration is implicit in the works of Peano and his school, and a complete exposition of it has been promised by Mr. Russell in the second volume of his *Principles.* Couturat's aim, in these articles, is to give a summary account that will be less technical and more understandable by the ordinary student of philosophy.] **F. Rauh.** 'Le devenir et l'idéal social à propos d'une brochure récente.' [Considers some points raised by E. Levy's *L'affirmation du droit collectif* as to

the nature and grounds of belief in a social ideal.] **Bouglé.** 'La démocratie devant la Science.' [This is the conclusion of a volume which is about to appear under the title, *Etudes critiques sur l'hérédité, la concurrence et la différenciation*, and which is a defence of modern democracy against those 'scientific' opponents who regard it as a violation of the natural law of the selection and differentiation of the fittest.] **Fouillée** discusses in a most interesting manner 'L'idée de patrie,' raising the problem of the legitimacy and necessity of war. **A. Lalande** discusses 'La Langue Universelle'. Etudes Critiques, etc. 12e Année, No. 2. March, 1904. **Renouvier.** 'Les derniers entretiens, publiés par Louis Prat.' [Renouvier during the four days preceding his death (1st September, 1903) dictated to his disciple M. Prat this final statement of his philosophical position. M. Léon, the editor, has the following note: "En publiant, sans en rien omettre, ces entretiens suprêmes où le philosophe, avec sa belle franchise, exposait à son ami ses convictions les plus intimes et ses plus chères espérances, nous croyons rendre à Ch. Renouvier l'hommage auquel il aurait été le plus sensible, le seul, en tout cas, vraiment digne de celui qui, au seuil de la mort, affirmait 'qu'il avait toujours cherché la vérité sincèrement, d'un cœur désintéressé et qu'il ne se souvenait pas d'avoir écrit une seule ligne qui ne fut l'expression de sa pensée'."] **F. Colonna d'Istria.** 'Ce que la médecine expérimentale doit à la philosophie.' [Shows importance of Pinel's work, which was inspired by Condillac's method of analysis.] **L. Couturat.** 'Les principes des mathématiques.—II. L'idée de nombre. III. L'idée d'ordre.' **F. Evellin.** 'La Raison et les Antinomies.'—III. [A continuation of his previous articles on the third antinomy.] **Fouillée** discusses Renouvier's ethics; and **P. Lacombe** 'L'idée de patrie.' Livres nouveaux, etc. 12e Année, No. 3, May, 1904. 'Numéro spécialement consacré au centenaire de la mort de Kant.' [This double Number is reserved for fuller notice.] 12e Année, No. 4, July, 1904. **G. Lanson.** 'L'histoire littéraire et la sociologie.' [Lanson formulates by induction certain social laws which he discovers in modern French literary history. These he names: (1) loi de corrélation de la littérature et de la vie; (2) loi des influences étrangères; (3) loi de corrélation des formes et des fins esthétiques; (4) loi d'apparition du chef-d'œuvre; (5) loi de l'action du livre sur le public.] **Ch. Rist.** 'Economie optimiste et économie scientifique.' [The individualistic, optimistic point of view of Adam Smith and his followers is due to their failure to distinguish the purely economical from the more concrete social problems.] **Couturat.** 'Les principes des mathématiques.—IV. Le continu.' **A. Rey.** 'La philosophie scientifique de M. Duhem.' Livres nouveaux, etc.

Zeitschrift für Psychologie und Physiologie der Sinnesorgane. Bd. xxxiii., Heft 6. **H. Zwaardemaker.** 'Die Empfindlichkeit des Ohres.' [Calculation of amount of energy necessary to a liminal sensation at either end and in the middle of the tonal scale; comparison with earlier results.] **F. Kiesow.** 'Zur Psychophysiologie der Mundhöhle, nebst Beobachtungen über Funktionen des Tast- und Schmerzapparates und einigen Bemerkungen über die wahrscheinlichen Tastorgane der Zungenspitze und des Lippenrots.' [Criticism of the views of Wundt and von Frey, with special reference to the work of Fusari and other Italian investigators.] **F. Kiesow.** 'Zur Frage nach der Fortpflanzungsgeschwindigkeit der Erregung im sensiblen Nerven des Menschen.' [So far as the experiments go, there is no difference in the rate of sensory and motor nervous conduction.] **F. Kiesow.** 'Ein Beitrag zur Frage nach den Reaktionszeiten der Geschmacksempfindungen.' [Discussion of technique and values; only the sensorial form of reaction is possible.]

Literaturbericht. Bd. xxxiv., Heft 1. **A. Borschke.** 'Untersuchungen über die Herabsetzung der Sehschärfe durch Blendung.' [There is great variability of result, due principally, if not exclusively—apart from defects of the optical media—to individual differences in the position of the limen for 'sensations of difference'.] **G. Heymans.** 'Untersuchungen über psychische Hemmung.'—III. [Deals with the inhibition of sound sensations by electrical cutaneous stimulation; confirmation of previous results.] **M. Lobsien.** 'Ueber Farbenkenntnis bei Schulkindern.' [Tests of children eight to fourteen years of age for knowledge of colour names, and preference of simple colours and of simple colour combinations.] **C. A. Strong.** 'Leib und Seele.' [Criticises Stumpf's view of panpsychism.] Literaturbericht. Bd. xxxiv., Heft 2. **C. M. Giessler.** 'Das Geschmackvolle als Besonderheit des Schönen und speziell seine Beziehungen zum sinnlichen Geschmack.' ["Die Einfühlung in das Geschmackvolle besteht in einem phantasiemassigen Betasten des entsprechenden Substrates im Lichte einer durch dasselbe angeregten idealen Stimmung unseres Inneren."] **G. Abelsdorff** and **H. Feilchenfeld.** 'Ueber die Abhängigkeit der Pupillarreaktion von Ort und Ausdehnung der gereizten Netzhautfläche.' [In bright adaptation, increase of the size of the stimulating surface in monocular vision produces the greatest increase in pupil constriction when only central regions of the retina are affected. The reflex effect is greater in binocular vision, though no mathematical formula for the addition can be given. Characteristic differences are found in dark adaptation.] **F. Bernstein.** 'Das Leuchtturmphänomen und die scheinbare Form des Himmelsgewölbes.' [Describes the apparent form of the rays emitted by the lantern of the Heligoland lighthouse. In general, the author agrees with Filehne.] Literaturbericht. Bd. xxxiv., Heft 3 und 4. **B. Groethuysen.** 'Das Mitgefühl.' [An attempt to define, describe, analyse and delimit the emotion of 'sympathy,' in the light of a critical review of existing theories.] **W. A. Nagel** and **K. L. Schäfer.** 'Ueber das Verhalten der Netzhautzapfen bei Dunkeladaptation des Auges.' [Experiments with red, blue and green light. The cones show the influence of adaptation, though to a very much less marked degree than the rods.] **W. A. Nagel.** 'Einige Beobachtungen über die Wirkung des Druckes und des galvanischen Stromes auf das dunkeladaptierte Auge.' [Pressure phosphenes vary with bright or dark adaptation; electrical phosphenes remain unaltered.] **G. Abelsdorff** and **W. A. Nagel.** 'Ueber die Wahrnehmung der Blutbewegung in den Netzhautkapillaren.' [The phenomenon is due to partial absorption of certain kinds of light in the hæmoglobin of the red blood corpuscles.] Literaturbericht.

KANT-STUDIEN. Festheft zum 100-jähr. Todestage Kants. Bd. ix., Heft 1 und 2. The Number is prefaced by a poem by **O. Liebmann.** 'Kant: Zur Erinnerung an den 12 Februar 1804.' **Windelband.** 'Nach hundert Jahren.' [Discusses Kant's contribution to philosophy in its connexion with present-day thinking.] **E. Troeltsch.** 'Das Historische in Kant's Religionsphilosophie. Zugleich ein Beitrag zu den Untersuchungen über Kant's Philosophie der Geschichte.' [A long and very detailed article of 134 pages. It contains much valuable matter. Troeltsch is not so much concerned to criticise Kant's teaching as to give (what he contends has not yet been done) an exact statement of his actual views regarding the relation between the philosophy of religion and history. "Kant's Lehre ist weit entfernt von dem ihr gewöhnlich zugeschriebenen geschichtslosen Sinne, sie zieht vielmehr geradezu die Konsequenz der beginnenden Historisierung des mensch-

lichen Denkens und der Einverleibung der heiligen Geschichte in die allgemeine Religionsgeschichte." The discussion of the alleged unhistorical character of the Aufklärung (p. 46 ff.) is specially good.] **F. Heman.** 'Immanuel Kants philosophisches Vermächtnis.' [Finds in the very fragmentary notes written by Kant in his last years an indication of the true lines upon which the critical philosophy ought to be developed.] **B. Bauch.** 'Die Persönlichkeit Kants.' **F. Staudinger.** 'Kants Bedeutung für die Pädagogik der Gegenwart. Zum Streite Natorps mit den Herbartianern.' **E. Kühnemann.** 'Herder und Kant an ihrem 100-jährigen Todestage.' [An excellent article.] **A. Riehl.** 'Helmholtz in seinem verhältnis zu Kant.' [A very complete account of the influence exercised by Kant on Helmholtz in the successive stages of his philosophical development. It was the great merit of Helmholtz, during the tyrannical predominance of the natural sciences in the years 1860 to 1880, to have maintained with all the weight of his authority the rights of philosophy and its importance for natural science itself. This same article is given in the Centenary Number of the *Revue de Métaphysique et de Morale*.] **F. Paulsen.** 'Zum hundertjährigen Todestage Kants.' [This is the preface to the fourth edition of Paulsen's *Kant*.] **G. Runze.** 'Emerson und Kant.' **F. A. Schmid.** 'Kant im Spiegel seiner Briefe.' **E. v. Aster.** 'Die neue Kant-Ausgabe und ihr erster Band.'

Zeitschrift für Philosophie und Philosophische Kritik. Bd. cxxiii., Heft 1. **W. v. Tschisch.** 'Das Grundgesetz des Lebens (Schluss).' [The infinite capacity for assimilation which distinguishes living matter supplies a basis for the infinite development of mind—a development which involves a perpetual creation of energy.] **W. Fickler.** 'Hegels Werthschätzung des Staates (Schluss).' [Hegel's intellectualism fails to account, on principles of pure reason, for æsthetic and religious experiences, and his many excellent observations on those subjects are made in spite of, not as deductions from, his system. Even science with its search for objective reality and fixed law would be made impossible by the all-dissolving dialectic method. Finally his glorification of the State, though not without an element of truth, is evidently heathen in its origin, assumes far too much reason and goodness in the world, and ignores the powers of evil, which can only be encountered with the help of a supernatural revelation. On the whole Hegel errs in so far as he does not agree with Prof. Eucken.] **Dr. H. Reichel.** 'Mills Theorie der induktiven Methode (Fortsetzung).' [Concludes the expository portion of this essay.] **Dr. Rudolf Sokolowsky.** 'Ein neuer tragischer Held.' [Julian the Apostate in Ibsen's 'Emperor and Galilæan' neither is nor is meant to be a historical representation. He is the mask of a new tragic hero, humanity, or rather humanity and the world in combination, evolving the reign of truth and right. Artistically the attempt is not a success: we fail to understand Ibsen's ideal, and his symbolism leaves us cold.] **H. Siebeck.** 'Religion und Entwicklung.' [A friendly account of Eucken's philosophy of religion. As the powers of nature progressively unfold themselves through life into mind there comes an increasing consciousness of self as the essence of the world, and an increasing effort to realise this substantial self in the creations of art, science, morality and religion. Pantheism and theism are reconciled in the two ideas of immanence and progress. Revealed religion represents an approach made from the side of the supernatural towards us.] **Friedrich Paulsen.** 'Parallelismus oder Wechselwirkung.' [A brilliant defence of the double-aspect theory against Prof. Busse's criticisms. Its advocates have been charged with inconsistently changing their ground, when hard

pressed, from dualism to idealism. Paulsen replies that he at least does not attribute the same degree of reality to matter and mind. The nervous modifications only exist for consciousness; but at the same time they form a connected series of symbols by which it represents its own processes to itself. A direct action of mind on matter has never been proved, and the complicated machinery of the nervous system makes it highly probable that for every physical occurrence there is a physical antecedent, although we may never be able to prove it in each particular instance.]

Bd. cxxiii., Heft 2. **Dr. H. Reichel.** 'Mills Theorie der induktiven Methode (Schluss).' [A criticism of Mill's logic from the neo-Kantian point of view. A 'method of pure experience' is self-contradictory, for experience means nothing but a chaos of unconnected appearances. Any proposition involves the adjunction of an *a priori* element, much more does the process of logical demonstration. The law of universal causation needs something more than an accumulation of instances to establish it, for the next new instance may contradict our whole past experience. The four Experimental Methods are not instruments of proof but of discovery. Mill was a rhetorician rather than a philosopher, though not, what Stanley Jevons calls him, thoroughly illogical.] **H. Siebeck.** 'Religion und Entwickelung (Schluss).' [Supplements and confirms Eucken's account of the evolution of religion by emphasising the continual increase of freedom implied by the ascending process. Farther, Siebeck observes that for development to go on there must be resistance involving many painful struggles. Pleasure cannot be the end of life, which is the realisation of an ideal, conceived in religious language as an effort to make the will of God prevail. From this point of view evil is interpreted as what ought not to be, but at the same time as the resistance to progress, without which progress could not be conceived. **Fr. Paulsen.** ['Parallelismus oder Wechselwirkung (Schluss).' [The belief in an unbroken chain of physical causation does not reduce conscious intelligences to the condition of automata, such causation being merely the machinery by which the teleology of the universe achieves its ends. Busse unwarrantably rejects the conservation of energy as an *a priori* assumption. It is a postulate justified by our experience so far as it goes. Busse's theory of interaction between mind and matter is supported by a totally unproved monadic hypothesis which no physiologist is likely to accept.] **P. Beck.** 'Erkenntniss theorie des primitiven Denkens.' [What we call subjective existences, that is the illusions as distinguished from the realities of perception, are recognised after a fashion by primitive man, who classes them off as supernatural beings; thus protecting himself against the evils which would result from a confusion between actual objects and delusive appearances. In this way we can understand how superstition conduces to the survival of the fittest.] **Gregor v. Glasenapp.** 'Der Werth der Wahrheit.' [There is no need to ask why the beautiful and the good are valuable: the one is so because it gives pleasure, and the other by definition. But truth considered merely as the subjective image of an objective reality is not self-evidently a thing of intrinsic worth. Grant that the progress of Civilisation is due to the advance of Knowledge, still as morality is not progressive this does not constitute a real gain. The mechanical inventions due to science are a very doubtful boon, nor has any genuine lover of truth ever cultivated it for their sake. Truth is valuable in so far as it gives us the consciousness of unity, ascending through the classification of objects and the ascertainment of laws to the conception of the world as one, and of ourselves as one with each other and with the world. Such is the

deepest meaning both of philosophy and of religion.] **Dr. Szlávik.** 'Zur neuesten Literatur der Philosophie in Ungarn.' [Briefly notices a number of recent Hungarian works on philosophy.]

ARCHIV F. D. GESAMMTE PSYCHOLOGIE. Bd. i., Heft 1. **E. Meumann.** 'Zur Einführung.' [The various sources from which modern psychology derives account for the wide diversity of opinion until recently prevailing. The give-and-take of the different schools has, however, led to a *rapprochement* of aim and method within psychology itself; experiment is recognised as fundamental, not as elementary; and the sciences in which the results of psychology find application are gradually converging towards a common use of its data. The days of struggle are over; and the present danger lies rather in lack of centralisation and co-ordination. The new *Archiv* hopes principally to subserve the purposes of unification and concentration of psychological work.] **E. Kraepelin.** 'Ueber Ermüdungsmessungen.' [Two distinct questions are involved: that of the fatigue-effect produced in a given individual by activities of different kind and duration, and that of the personal differences of liability to fatigue under identical conditions. The test of fatigue, in the former case, must not be psychomotor, but, apart from that, may be general, applied alike to all classes of study. We cannot rely upon the æsthesiometric test of Griesbach and Wagner, or upon the ergograph test of Kensies; Ebbinghaus' combination test is as yet of the nature only of a preliminary experiment. The best means available is, probably, that of the addition of one-place figures. For the intercomparison of different persons, as regards liability to fatigue, the only available procedure so far is that of the optimal pause.] **H. J. Pearce.** 'Ueber den Einfluss der Nebenreizung auf die Raumwahrnehmung.' [(1) *Experimental:* Localising movements; judgments of relative position of points, without movement, under the influence of one, two and three secondary stimuli; estimations of distance; comparison of lines (tactual reproduction of Müller-Lyer figure). (2) *Theoretical:* The theory of diffusion circles, *i.e.*, of the tendency of excitations to fuse within the central nervous system, will not account for the localisation phenomena; the theory of motor impulses must, at least, be supplemented for the cases in which there was no direct localisation, but simply a judgment of relative position; the theory of the influence of secondary stimuli leads to a principle of equilibrium of forces; optical and tactual illusions fall under the common principle of the relativity of our sense perceptions. (3) *Susceptibility to the influence of secondary stimuli:* The secondary stimulus as suggestion; abnormal suggestibility (hypnotic experiments); suggestibility and intelligence (experiments on children). *Conclusion:* "Every perception contains a complex of qualities, whose elements are determined not solely by the direct object of perception, but also by other objects in the field of perception, apart from reproductive factors. The influence of surrounding objects is directly proportional to the magnitude of the difference limen." The influence of secondary stimuli has a clear analogue in the sphere of memory. The attitude of attention is important, and deserves further study.] **R. Gaetschenberger.** 'Ueber die Möglichkeit einer Quantität der Tonempfindung.' [Ohm's law, taken by itself, does not rule out the possibility of a fourth part-content of tonal sensation, quantity or fulness. It is, however, usually combined with the formula of the sine wave; less frequently with that of the cosine wave. Both of these formulæ exclude the fourth attribute of tone. But the first cannot be valid in nature, and there is so far no good reason for the acceptance of the second. The author seeks to show

that "the tone wave proceeding into the air from a vibrating body requires a period of formation (*Ausbildungszeit*), during which it is neither sine wave nor cosine wave; and that the position of the centre of vibration for a particle in the fully formed wave is neither the point of rest nor a point determined by half the amplitude, but a point depending principally upon the magnitude of the effective surface of the body". If the time of formation and the displacement of the centres of vibration are measurable magnitudes, we have in the simple tonal stimulus the possibility of the fourth part-content required.] **A. Wreschner.** 'Zur Psychologie der Aussage.' [Critique of Stern's use of pictures, in his 'Zur Psychologie der Aussage, 1902.' Employment of a method of examination, akin to Binet's method of questions: mode of calculation. Detailed comparison of results of the two methods, of examination and of free report: reproduction of colour, form, locality; range and fidelity of memory are less for material than for personal attributes; individual (especially sex) differences.] Besprechungen. Referate. **H. Gutzmann.** 'Fortschritte auf dem Gebiete der Erforschung der kindlichen Sprache in den Jahren 1898-1902.'

Vierteljahrsschrift für Wissenschaftliche Philosophie und Sociologie. Jahrgang xxvii., Heft 1. **J. Schultze.** 'Ueber die Fundamente der formalen Logik.' [A polemic against Husserl; it is maintained that Logic may and must be founded on Psychology.] **R. Muller.** 'Ueber die zeitlichen Eigenschaften der Sinnes-wahrnehmung.' [The temporal like all other characters of sensation are such only as are dependent on physiological conditions. Only from this point of view are they capable of scientific treatment.] **Paul Barth.** 'Die Geschichte der Erziehung in sociologischer.' [Fourfold division of Education into *Zucht* and *Unterweisung* which are practical, and *Unterricht* and *Belehrung* which are theoretical. *Zucht* or discipline is absent among hunters and fishers, rudimentary among pastoral peoples and those in the lowest stages of agriculture, fully developed among agriculturists with patriarchial organisation.] Jahrgang xxvii., Heft 2. **Demetrius Gusti.** 'Egoismus u. Altruismus.' [The typical emotional springs of practical volition are Self-love, Sympathy and Reverence (in Goethe's sense); the typical ends intellectually represented are derived from Perception, Understanding and Reason, which are regarded as corresponding to different stages of mental development; from this point of view the development of the Will in the sphere of political economy is discussed.] **F. Oppenheimer.** 'Ein neues Bevolkerungs-gesetz.' **Cay von Brockdorff.** 'Schopenhauer u. die wissenschaftliche Philosophie.' [Deals with Schopenhauer's criticism of atomism, his attitude to doctrines of Ether, etc., and ends with a general estimate of his influence on scientific theory.]

Archiv für Philosophie. Bd. x., Heft 1. **E. Adickes.** 'Auf Wem ruht Kant's Geist?' [No philosophy of the present day can legitimately identify itself with Kant's.] **Max Dessoir.** 'Anschauung u. Beschreibung.' [Descriptive literature has an artistic efficacy of its own due to the power of words independently of suggested images.] **J. N. Szuman.** 'Der Stoff vom philosophischen Standpunkte.' [The properties of matter are essentially modes of its activity. Material substance or "stuff" is a figment.] Bd. x., Heft 2. **J. Cohn.** 'Psychologische oder Kritische Begründung der Aesthetik.' [Argues against Psychologism and advocates an independent doctrine of æsthetic value.] **V. Allara.** 'Sulla questione del Genio.' **A. Muller.** 'Die Eigenart des religiosen Wesens und seine Gewissheit.' [Religion has its source and justification in the *Gemuth*, which is the primitive unity of Thought, Feeling and Will, yet no mere combination of these.]

IX.—NOTES AND CORRESPONDENCE.

Dear Mr. Editor,—I am glad that, as Prof. Strong is dissatisfied with my criticism of his book *Why the Mind has a Body*, he has placed on record the grounds of his complaint. As I expressly stated in my review, I found it impossible to give in a few pages anything like a complete account of a work which covers so large a field and contains so much highly controversial matter. But though I may not have chosen for remark exactly those points which Prof. Strong regards as most important, I do not think that he can accuse me of having selected for criticism any but important and central points. As regards the correctness of my account of his views, I cannot admit that my statement of them has been in any essential respect inaccurate. I certainly omitted to note that Prof. Strong does not assert the principle of the conservation of energy to be an induction from experience, and that he leaves it an open question whether it is an induction or a law of thought. But this is an omission of which I made no use in my criticism. On the other hand, Prof. Strong seems to me to be guilty of misrepresenting my criticism. I did not assert that mind and body are complete opposites, or that Dr. Ward had established this fact in his Gifford Lectures. I contended only that when the brain is scientifically interpreted in terms of matter and motion, it appears as completely opposite in nature to mind, and that in advocating between such opposites a parallelism of the most absolute kind Prof. Strong has not succeeded in refuting Dr. Ward's arguments. Again, so far from implying "that causal relations between mental and physical events are exactly as intelligible and acceptable as the causal relations of physical events *inter se*," I stated in the most explicit manner that "I altogether sympathised with Prof. Strong's unwillingness to admit the possibility that such different things as motion and sensation can be causally related". In my defence of Hume I took up Prof. Strong's own position; and his reply amounts to an admission of my contention that the causal argument cannot be adequately treated apart from consideration of the facts embodied in the principle of the conservation of energy. I cordially agree that the causal relation is not an independent something with an "actual nature".

Prof. Strong also asserts that I have seriously misrepresented him in saying that he offers the facts of colour-blindness as a sufficient proof of the purely subjective nature of experience. But as I quoted his *ipsissima verba*, and as my criticism also seems to me to cover the general line of his argument, I must refuse to recognise the justness of his objection. In this connexion Prof. Strong asks me to explain how a perception "which varies directly solely with a brain-event" can be anything but purely subjective. My reply is, of course, that so far as it does vary *solely* with a brain event it is certainly subjective. I am also willing to agree that every perception varies *immediately* and *directly* only with the brain-state; but I cannot accept Prof. Strong's contention that to be objective, perceptions "must vary solely with the object". That every perception, without exception, is physiologically conditioned, and is therefore influenced by the constitution of our sense-organs and brain is, as I said in my review, a fact which no one can question. But it does not prove that experience is purely subjective in Prof. Strong's sense. That

Prof. Strong relies on a false interpretation of the physiological point of view can, I think, be proved by such a line of argument as that which Avenarius presents in his *Menschliche Weltbegriff*. Prof. Strong further objects to my assertion that he regards experience as purely subjective. But it still seems to me a sufficiently accurate description of his position. Experience, he holds, does not immediately reveal objective reality, and it cannot be transcended by any process of immediate or mediate inference. Knowledge of the existence of other minds, and even of our own past experiences, rests, he therefore contends, neither on reason nor on experience, but solely on instinct. This surely amounts to the assertion that experience is purely subjective.

I am, etc.,

NORMAN SMITH.

ON A NOTE OF MR. BRADLEY'S.

Mr. Bradley's note at page 329 of the July number of MIND might easily mislead readers unacquainted with my books and other writings. It is worth while therefore to set down the following corrections on matters of fact.

First, it is untrue that I have ever had any inclination towards the kind of scepticism which Mr. Bradley here calls philosophical; and grotesquely untrue that in the article he mentions I claimed to be its champion. If the reader cares to look up the point (MIND, N.S., No. 11, p. 336 ff.) he will find that the expressly stated intention of that article was to champion another form of philosophical scepticism in place of this old and untenable one which has usurped the name. The same thing is stated again in § 51 of my book on the *Use of Words in Reasoning*.

Secondly, while it is obvious that I welcome Mr. Schiller's view as important, and as having whatever novelty the notion of importance involves, and that I cordially agree with much of it, still its "assured victory"—in the sense of freedom from further improvement—is not among the results that I think possible, or desirable. And I should be much surprised to learn that either in my review of *Humanism* or in any of my other writings—say, within the last twenty years—any phrase occurs which points to my expectation of the assured victory of any 'ism' whatever. One may hope, indeed, that the permanent *defeat* of certain philosophical traditions is possible, in due course of time; but permanent victory is something that, in philosophy, seems to me reserved, not for systems as such, but only for the recognition of the occasional uses of distinctions ignored in them. All this however I have expressed before at greater length.

If Mr. Bradley would try the simple method of quoting, or giving definite references, when he wishes to attribute ridiculous views to other writers, he would often see the need of correcting his misrepresentations before they get into print; and would incidentally save himself from encountering this kind of answer.

ALFRED SIDGWICK.

TO THE EDITOR OF "MIND".

SIR,—In my review of Mr. Haldane's "Pathway of Reality" there occurred—doubtless through my own fault—a misprint so absurd that I should be glad if you give me the opportunity of correcting it. I am printed as saying "Mr. Haldane's version of Religion may be described as Religion with the clerical element left out". I am sorry to find that some of my friends think me capable of having written such a sentence. What I wrote was "the *ethical* element".

H. RASHDALL.

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